SRI LANKA STATE OF THE ECONOMY 2022

From Crisis to Recovery: Driving Policy Action Through SDGs



INSTITUTE OF POLICY STUDIES OF SRI LANKA

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Acronyms

AFOLU	Agriculture, Forestry, and Other Land Use
A-Level	Advanced Level
BOP	Balance of Payments
CCO_2	Consumption-based Emission Accounting
CEB	Ceylon Electricity Board
CO_2	Carbon Dioxide
COD	Country of Destination
COO	Country of Origin
COVID-19	Coronavirus
CSE	Colombo Stock Exchange
DCS	Department of Census and Statistics
DSF	Debt Sustainability Framework
DSSI	Debt Service Suspension Initiative
ECB	European Central Bank
EFC	Employers' Federation of Ceylon
EME	Emerging Market Economy
EPR	Employment to Population Ratio
ESG	Environmental, Social and Governance
FAO	Food and Agriculture Organisation
FBR	Family Background Report
FLFP	Female Labour Force Participation
GAP	Good Agricultural Practice
GDP	Gross Domestic Product
GFC	Global Financial Crisis
GFSI	Global Food Security Index
$GgCO_2$	Gigagrams of Carbon Dioxide
GGGI	Global Gender Gap Index
GHG	Greenhouse Gas
GHI	Global Hunger Index
GNI	Gross National Income
GSP	Generalised System of Preferences
GSRI	General Service Readiness Index
GVC	Global Value Chain
GWh	Gigawatt Hours
HDU	High Dependency Unit
HIES	Household Income and Expenditure Survey
HIPC	Highly Indebted Poor Country

ICT	Information and Communications Technology
ICU	Intensive Care Unit
IFOAM	International Federation of Organic Agriculture Movements
IMF	International Monetary Fund
IPP	Independent Power Producer
ISB	International Sovereign Bond
ISCOs	International Standard Classification of Occupations
Kg	Kilogram
KoE	Kilogram of Oil Equivalent
KT	Kilotonne
kWh	Kilowatt-Hour
KYC	Know Your Customer
LCB	Licensed Commercial Bank
LCLTGEP	Least Cost Long-term Generation Expansion Plan
LDC	Least Developed Country
LECO	Lanka Electricity Company
LFS	Labour Force Survey
LIC	Low-income Country
LKR	Sri Lankan Rupee
LMIC	Lower-middle-income Country
LP	Liquefied Petroleum
MDG	Millennium Development Goal
MENA	Middle East and North Africa
MIC	Middle-income Country
MM	Millimetre
MNCH	Maternal, Newborn and Child Health
MOH	Ministry of Health
MPI	Multidimensional Poverty Index
MSW	Municipal Solid Waste
MT	Metric Tonne
MTO	Money Transfer Operator
MW	Megawatt
NCD	Non-communicable Disease
NDC	Nationally Determined Contribution
NLMP	National Labour Migration Policy
NYP	National Youth Policy
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
O-Level	Ordinary Level

OOP	Out-of-pocket
ORE	Other Renewable Energy
PFCA	Personal Foreign Currency Account
PIP	Public Investment Programme
PJ	Petajoules
PPM	Parts Per Million
PPP	Public-private Partnership
PUCSL	Public Utilities Commission of Sri Lanka
RCEP	Regional Comprehensive Economic Partnership
RCP	Representative Concentration Pathways
RE	Renewable Energy
S&T	Science and Technology
SDG	Sustainable Development Goal
SEC	Securities and Exchange Commission
SLBFE	Sri Lanka Bureau of Foreign Employment
SLMHP	Sri Lanka Migration Health Policy
SLOTS	Sri Lanka Opinion Tracker Survey
SLSEA	Sri Lanka Sustainable Energy Authority
SNA	System of National Accounts
SOE	State-owned Enterprise
SSB	Sugar-sweetened Beverage
T&G	Textile and Garment
TCO_2	Territorial Production-based Accounting
TJ	Terajoules
TUS	Time Use Survey
TWh	Terawatt Hour
UHC	Universal Health Coverage
UMIC	Upper-middle-income Country
UN	United Nations
UNDP	United Nations Development Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNICEF	United Nations International Children's Emergency Fund
USD	United States Dollar
VNR	Voluntary National Review
VPS	Vistas of Prosperity and Splendour
WHO	World Health Organization
WTO	World Trade Organization
YoY	Year-on-year

TOWARDS ECONOMIC STABILITY

1. Policy Perspectives

While a vast majority of countries around the world began to exit from a zero coronavirus (COVID-19) strategy from early 2022 and look forward to a revival in fortunes, Sri Lanka's descent into economic and political chaos gathered pace. As public disaffection with prolonged power outages, shortages of essential commodities and queues mounted, high level resignations from March 2022 culminated with that of the President in July 2022 under intensifying pressure from public protests.

Sri Lanka's harshest economic and political crisis thus leaves in its wake an economy saddled by debt, scant access to credit and a sovereign debt default that indelibly stains the country's credit reputation. The fallout from the COVID-19 pandemic did pile on pressure to Sri Lanka's already weakened economy. However, most other countries managed to push through coordinated macroeconomic measures to come out of the pandemic relatively unscathed. In Sri Lanka's case though, a series of wrong interventions were applied instead. Sharp tax cuts introduced at end 2019 to stimulate growth priced Sri Lanka out of capital markets, but were persisted with. The Central Bank of Sri Lanka (CBSL) was then made complicit to administer a massive monetary stimulus to meet the revenue shortfall and additional pandemic-related costs. Disregarding the impact of the latter move on the Sri Lankan Rupee (LKR), a deeply misguided exchange rate policy stance was adopted. It fixed the rate at an arbitrary and untenable peg to keep the domestic currency value of foreign debt from going up and held on to it for nearly a year, draining reserves along the way.

The exchange rate stance also necessitated accompanying exchange and import restrictions which inevitably led to shortages in essentials like fuel, food and medicines. The food shortages were compounded by an ill-thought-out policy

Sri Lanka's harshest economic and political crisis thus leaves in its wake an economy saddled by debt, scant access to credit and a sovereign debt default that indelibly stains the country's credit reputation.

decision to ban the import and use of chemical fertilisers. As the economy continued to weaken, the outbreak of the Russia-Ukraine war in February 2022 dealt the final death blow, greatly amplifying Sri Lanka's risks and vulnerabilities. Most especially, the resultant spike in commodity prices made an already impractical foreign exchange policy completely unviable. The peg was lifted unceremoniously in March 2022, causing the LKR to depreciate by a historically high 80%, surpassing even the 1977 devaluation at the height of Sri Lanka's economic liberalisation episode. The devaluation and a monetary policy stance that was too loose for too long are also contributing to rampant inflation – running at an all-time high of over 70.2% year-on-year (YoY) by August-2022 – to add to the economic tailspin.

Sri Lanka's macroeconomic policy management was of the kind that adds to shocks rather than one that responds to them.

In short, Sri Lanka's macroeconomic policy management was of the kind that adds to shocks rather than one that responds to them.

No doubt there will be much soul-searching to understand how Sri Lanka's political and institutional structures fractured to bring about the country's most severe political and economic unravelling. Much of the blame must be placed on politicisation and the weakening of institutions over time. Most often, networks of politically connected individuals are appointed to key positions, eroding independent counsel and amplifying policy hubris. At no time has this been more evident in Sri Lanka than during this crisis, when political goals appeared to determine policy rather than economic fundamentals.

Indeed, if Sri Lanka was to have gone by economic fundamentals, warnings on the country's exposure to foreign debt and associated vulnerabilities to external shocks have been sounded consistently over the last decade. Sri Lanka's partiality to refinance maturing foreign debt and the CBSL's reliance on market debt issuance for its reserve accumulation were high risk strategies that do not work when there is a sudden stop in capital inflows. The exchange rate can then be vulnerable to the market's whims, where perceived currency weakness feeds on itself. Under these conditions, the prudent course is to keep the door open to the 'lender of last resort' – the International Monetary Fund (IMF) – for a possible balance of payments (BOP) support if the imbalances seem set to grow.

IMF programmes can be a double-edged sword. These are known to have a positive catalytic effect on private lenders, helping governments to raise foreign borrowing, as done by Sri Lanka during its 2009-2012 and 2016-2019 programmes. But, there can be cost in the long run if the resultant

accumulation of higher debt levels also increase sovereign default risks.[1] At the same time, if countries do run into trouble owing to unexpected shocks and/or economic mismanagement, IMF conditionalities often tend to delay governments from availing themselves of bailouts.

An accurate tally of the avoidable policy blunders will not be known for many years, but it will be vast. The reputational damage is immeasurable; the economic cost is only just beginning to be counted.

If the loss of policy autonomy under IMF conditionalities is politically unpalatable, all necessary steps to retain policy flexibility are a must. The first step is to establish credibility by embracing sound macroeconomic policies out of the country's own understanding of the need for a comprehensive solution to a crisis build-up. In Sri Lanka's case, as the imbalances mounted, it called for a rethink on the tax cuts towards a measured and predictable fiscal adjustment. Instead, there was an obstinate insistence that tax policies would remain unchanged and a lethargic approach to even clamp down on expenditures. Public sector salaries, for instance, jumped by 16% at the height of the pandemic in 2020; public sector employment increased by 77,000 during 2020-2021 compared to an increase of 72,000 during the entire previous five years (2015-2019).

The policy incoherence was compounded by an intractable stance on any approach to the IMF as economic conditions deteriorated. Instead, the government and its key policymakers appeared overly confident that short-term swaps, credit lines and loans from bilateral sources would suffice until migrant worker earnings and tourism recovered. In essence, it involved a tactical crisis engagement stance – moving from one problem to the next without offering a predictable path over time. Such crisis containment measures were clearly inadequate given the scale of Sri Lanka's financial imbalances. And as often happens, the ad hoc announcements and ever-stricter controls drained investors' faith even further. Valuable foreign capital inflows were lost as exporters and migrant workers opted to retain earned incomes overseas and/or use informal channels as they waited for the next iteration in policy. Not surprisingly, bilateral lenders too eased up on assistance in the absence of a credible recovery plan.

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[1] Fink, F., & Scholl, A. (2016). A Quantitative Model of Sovereign Debt, Bailouts and Conditionality. *Journal of International Economics,* Vol. 98, 176-190.

The most recent estimates suggest an 8% or above contraction in 2022, with Department of Census and Statistics (DCS) data showing a 4.8% contraction already for the first half of the year.

Sri Lanka's cost-of-living squeeze, weighing most heavily on the lowest income households, will tip a large vulnerable population into poverty. Faced with the risks of a prolonged inflation overshoot, finally, the CBSL had no choice but to opt for an aggressive hard and fast 7% hike in policy interest rates in April 2022. Understandably, given the deeply regressive nature of inflation and its all-around disruptive impacts – and distinct possibilities of hyperinflation scenarios – bringing inflation into line must once again assume primacy in the CBSLs' monetary policy framework. The aim clearly is to squeeze demand by raising interest rates and withdrawing liquidity; in effect, to force a recession in order to tame inflation.

The expected economic contraction will likely be the steepest plunge that the country has seen. The most recent estimates suggest an 8% or above contraction in 2022,[2] with Department of Census and Statistics (DCS) data showing a 4.8% contraction already for the first half of the year. Depending on the depth and duration of the recession, it may also mean the likelihood of permanent losses in output.[3] In short, Sri Lanka's economic progress has been set back by years.

With a vastly depleted range of choices, attention now has to be on minimising any permanent output losses. This demands prompt and simultaneous policy action on all macroeconomic fronts. The longer the delay in fiscal alignment to monetary policy tightening, the heavier the higher debt service costs from rising interest rates. Similarly, there is no further room for countermeasures to provide respite for the beleaguered currency. Finalising a Staff Level Agreement (SLA) with the IMF for a four-year United States Dollar (USD) 2.9 billion (Bn) Extended Fund Facility (EFF) programme in September 2022 is the successful first step. A swift conclusion to debt restructuring negotiations will be the crucial next hurdle to be overcome for the IMF Executive Board to sign off on the EFF. Given the size of the bailout, it is not the liquidity provision that matters so much as its catalytic effects on other official lenders and private investors.

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[2] Financial Times. (2022, August 19). *CB Projects Economy to Contract by 8%.* Retrieved August 19, 2022 from the Financial Times: https://www.ft.lk/front-page/CB-projects-economy-to-contract-by-over-8-in-2022/44-738879; *IMF (2022, 1 September). IMF Staff Reaches Staff-Level Agreement on an Extended Fund Facility Arrangement with Sri Lanka.* Washington, D.C.: International Monetary Fund. Retrieved September 2, 2022 from the IMF: https://www.imf.org/en/News/Articles/2022/09/01/pr22295-imf-reaches-staff-level-agreement-on-an-extended-fund-facility-arrangement-with-sri-lanka.

[3] Cerra, V., & Saxena, S.C. (2018). *The Economics Scars of Crisis and Recessions.* Retrieved July 20, 2022, from IMF Blogs: https://blogs.imf.org/2018/03/21/the-economic-scars-of-crises-and-recessions/

Whilst the evidence on debt restructuring attempts is often sobering,[4] as negotiations drag on in today's complex creditor landscape, Sri Lanka has no alternative but to proceed until an agreement is reached. A debt restructuring can be deep or shallow. The former is considered 'decisive' by curing the default and bringing debt to a sustainable path. The latter is essentially viewed as 'interim' where there is a high probability of relapse within two years. In Sri Lanka's case, having defaulted and thus entering IMF negotiations as a country in arrears, the conditionalities for a convincing debt sustainability path will demand a deep restructuring. However, there are no guarantees. Political instability can result in negotiation delays and repeated restructurings. If creditors have problems coordinating, that too can prolong a default crisis.

The evidence on IMF-supported programmes suggests a significant reduction in the likelihood of subsequent sovereign defaults as countries experience a slight improvement in their sovereign credit rating.[5] The adjustment costs are front-loaded, though, with benefits much slower to materialise and a turnaround time frame of 3-5 years for a gradual improvement in economic conditions to be felt. For Sri Lanka too, the required policy adjustments to place debt on a sustainable path will stop the country from spending its way out of the current crisis, limit help for the poor and restrict public investment. The downturn will push more people into poverty, hurt employment and job prospects for many others, and even lead to widening wealth gaps. If the adjustment costs are perceived to be unfair, it will fuel dissatisfaction and reverse a possible virtuous cycle.

Whilst there is bound to be opposition to this macro-stabilisation effort, there is no real alternative if Sri Lanka is to regain investor confidence and ease its acute liquidity constraints. It is the first step towards a broader reform agenda to support and sustain growth. Divergences of views on what form and shape a pro-growth reform agenda should take will intensify in the months to come. For Sri Lanka, to build social consensus through intended actions and outcomes from a solid policy foundation, there are three priorities: 1) the reforms should support the flexibility needed to adjust promptly to changing economic conditions, 2) the poorer household income deciles must be the key beneficiaries of intended outcomes, and 3) clear communication about the economic challenges, policy action and targeted outcomes must be placed in the public domain. The erosion of faith in political leaders and public institutions demands these.

In the absence of an existing strong national development framework and an associated process for an efficient allocation of resources, Sri Lanka's commitment to the globally agreed framework of the Sustainable Development Goals (SDGs) – encompassing the economic, social and environment – is a handy tool to begin this process. The framework helps to bring together the complex and interlinked facets of development, identify national priorities and monitor outcomes. To this end, this year's Sri Lanka: State of the Economy uses the SDGs as a useful lens to understand the many interlinked impacts of Sri

[4] Fang, C., Schumacher, J., & Trebesch, C. (2021). Restructuring Sovereign Bonds: Holdouts, Haircuts and the Effectiveness of CACs. *IMF Economic Review, 69*(1), 155-196.

[5] Balima, H.W., & Sy A.N. R. (2019). *The Impact of Bailouts on the Probability of Sovereign Debt Crises: Evidence from IMF-Supported Programmes.* IMF Working Paper WP/19/2. Washington, D.C: International Monetary Fund.

Lanka's economic crisis and suggest policy action to drive an inclusive recovery that holds out the best hope for economic and social stability in the near-term.

Poverty and inequality are on a marked rise and can undermine the broader social consensus necessary to endure a painful adjustment period unless greater sacrifices are asked from those with more ability to pay.

The pandemic has clearly set fresh obstacles globally in progress towards SDGs. Indeed, from an earmarked 'decade of action' to accelerate progress, the scaled backed ambitions are to 'rescue the SDGs'. For crisis-ridden economies like Sri Lanka, the undoing of years of progress will be even more stark. Poverty and inequality are on a marked rise and can undermine the broader social consensus necessary to endure a painful adjustment period unless greater sacrifices are asked from those with more ability to pay.

As the economic contraction unfolds, Sri Lanka's labour market conditions are regressing. Labour is moving to the less productive and lower-paying agriculture sector, where social security does not cover most jobs. As stagnant employment conditions further limit access to decent jobs for the low-skilled, females, youth, and those residing in rural areas, inequities can widen even more. These kinds of impacts call for prioritising investments in sectors that hold greater potential for productivity improvements, creating jobs that provide better incomes – i.e. high-skilled jobs, and jobs with social security that are more resilient to adverse shocks and technology changes. Improving female access to decent work is of particular importance for Sri Lanka, especially when the economic crisis is encouraging more irregular migration, with specific gendered and skills-based implications.

Similarly, better access to public services for the poor and vastly expanded social safety nets should be a priority in public expenditure rationalisation. Efforts to improve access to and better public services will be constrained by Sri Lanka's perilous finances. But, given existing disparities in school completion rates, especially in higher grades, measures such as targeted financial assistance for needy students will have to be considered. The same is true in tailoring financing priorities to keep up with the rapid shifts in Sri Lanka's epidemiological and demographic transition. The cost-of-living squeeze, especially on lower-income households is raising the burden of already high out-of-pocket expenditure on health.

The adverse impacts will be compounded by rising food insecurity in the country. Soaring food prices, shortages of essential food and faltering real incomes will cripple the ability to put sufficient and nutritious food on the table. Aside from targeted food ration schemes to cover essentials to deal with immediate needs, Sri Lanka must also pay attention to longer-term trends such as climate change impacts on agriculture and its consequences on the availability and affordability of food. Restricting trade to deal with such developments can be self-defeating, and often harm the very people that it is supposed to help, as witnessed recently, where food products were disproportionately targeted when curtailing imports. Limiting import substitution efforts to staple food crops and vital agricultural exports is consistent with a more productivity driven policy response.

It is time to push through reforms for modernisation and expansion of the manufacturing and services sectors and cushion the country's vulnerability to similar crises in the future.

Such efforts will be easier if Sri Lanka's growing vulnerability to external shocks is dampened. By far, the biggest conduit is the country's mounting dependence on imported fuel to meet its energy demands. Conflicts, inefficiency and corruption charges have dogged the many actors in the energy sector, resulting in financially unviable state-owned agencies and incessant delays in implementing projects. Indeed, the deeper causes in planning and implementation that have plagued the energy sector is symptomatic of Sri Lanka's overall failure to steer national goal setting through an integrated and coordinated development planning process. Sri Lanka has to make a break with ad hoc and politically driven short-term agenda setting, at least now.

The rest of the report sets out some of the challenges and policy choices before Sri Lanka in this pivotal year. The choices that the country makes will fundamentally shape how deep and long the recession is, and how quick and sustained the recovery will be. Sri Lanka's model of economic growth over the last decade – fuelled by investments in non-tradable activities like construction and real estate – has reached its limits. It is time to push through reforms for modernisation and expansion of the manufacturing and services sectors and cushion the country's vulnerability to similar crises in the future.

To this end, the immediate priority is to establish credibility by stabilising macroeconomic fundamentals. With hardly any margin for manoeuvre on policy, these efforts will be consistent with higher taxes, market reflective pricing mechanisms, and expenditure squeezes. Beyond stabilisation efforts, a gradual shift to an emphasis on growth is required. It will demand more macroeconomic flexibility without throwing stabilisation efforts into reverse, and reforms to tackle factor market rigidities.

Even at the best of times – with a strong and stable government at the start of an electoral cycle – such reform agendas are politically fraught. While an economic crisis too can often be a catalyst for a major overhaul, shorn of political stability, the upside risks are notably high. Governments also have far fewer resources in hand to compensate those who are bound to lose out from reforms. Indeed, the loss of faith in political institutions, with the Sri Lankan public clearly demonstrating its readiness to punish those who fail to deliver, amplifies the perils. In these circumstances, a pragmatic approach seems more sensible than a sweeping 'big bang' effort; amidst growing economic suffering and social unrest, overloading a reform agenda can lead to implementation failure.

These choices and challenges will require a dexterous balancing act by a government hopeful that people will have sufficient patience to wait while painful reforms work. To succeed, the government can do three things. First, be vigilant that political uncertainty does not interact to delay economic decision-making; second, demonstrate its commitment to put Sri Lanka's poorest at the heart of reform efforts; and third, be forthright in communicating its priorities and intent.

2. Economic Crises and Policy Adjustments for Recovery

2.1 Introduction

As the rebound from the coronavirus (COVID-19) pandemic-related low base effect fades, Sri Lanka's gross domestic product (GDP) is estimated to contract sharply in 2022 on the back of the harshest economic crisis that the country has faced. The contraction in output is consistent with significant disruptions to economic activities from power outages, supply-side shortages and an aggressive tightening of monetary policy in efforts to restore macroeconomic stability. Whilst many other economies are also facing similar challenges, Sri Lanka's economic crisis is acute, brought on by a combination of policy blunders that saw the country declare a default on foreign debt repayments in April 2022.

The key risk is that economic uncertainty will continue to interact with political uncertainty to undermine efforts towards recovery.

Despite the onset of the pandemic and additional stress on already fragile public finances, the government's recalcitrant insistence on continuing indefinitely with generous tax cuts announced at end 2019 was the first step to macroeconomic instability. The swift sovereign rating downgrades starting from December 2019 closed off Sri Lanka's ability to access capital market borrowings at reasonable costs to refinance foreign debt settlements. The available foreign currency holdings were depleted further through futile efforts to stem depreciating pressure on the Sri Lankan Rupee (LKR), emanating primarily from a massive expansion in direct financing of fiscal spending by the Central Bank of Sri Lanka (CBSL). Against all odds, the CBSL then held on to an arbitrarily fixed exchange rate for almost a year before a steep and abrupt depreciation.

The policy blunders have been very costly. The public outcry against shortages of essentials and the subsequent political changes in response will not quell growing anger and frustration amidst deteriorating economic conditions for the population at large. The rising cost of living – at an all-time year-on-year (YoY) high of 70.2% by August 2022 – is unlikely to abate immediately. Fiscal and monetary tightening measures under Sri Lanka's Extended Fund Facility (EFF) programme with the International Monetary Fund (IMF) will be consistent with modest output growth in the medium term, stifling new job creation. The

country, however, will have to bear this painful adjustment period if it is to come out of the crisis on a more stable footing. With little respite in sight, the key risk is that economic uncertainty will continue to interact with political uncertainty to undermine efforts towards recovery.

2.2 Background to the Crisis

Sri Lanka began to seek access to international capital market borrowing for development finance with the issuance of its debut international sovereign bond (ISB) in 2007. Indeed, international capital market developments in the aftermath of the global financial crisis of 2008 hastened the taxonomy of external financing options available to emerging middle-income countries (MICs) like Sri Lanka in significant ways. As advanced economies adopted unconventional monetary policy initiatives, global interest rates fell sharply. In turn, the climate of weak output growth and low returns on advanced economy sovereign bonds prompted investors to seek higher yields elsewhere, especially in expanding Asian emerging market economies (EMEs). A second equally important occurrence was the emergence of China as a key source of development finance, driven in part by its desire to secure natural resources as well as extend its geopolitical and economic influence.

Complementing these trends, Sri Lanka was galvanised to search for funding other than traditional concessionary soft-window development finance on graduation to middle-income status in 2010, limiting its access to concessionary forms of finance. Additionally, the new funding sources were attractive, being free of conditions and lengthy processes that typically govern multilateral funding institutions. Thus, in a post-war setting, with an ambitious public investment plan, the ability to access large volumes more quickly and disburse according to presumed needs was appealing.[1]

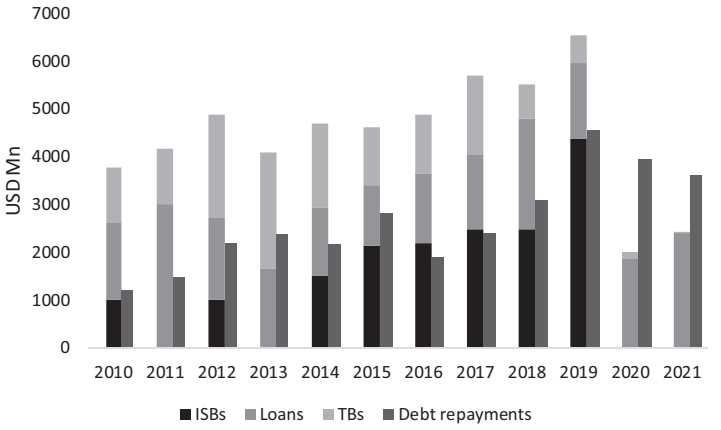
Such a stance is not necessarily a high-risk activity. If infrastructure investments raise a country's long-term growth prospects, higher volumes of revenue and/or foreign exchange earnings can be generated to settle debt obligations. But such investments will yield longer-term growth benefits only if they are socially profitable investments, undertaken with properly formulated infrastructure planning and prioritisation of projects, something that is not by any means guaranteed. Indeed, research evidence suggests that if investment choices are compromised by poor analysis and incentive problems, a major infrastructure drive is likely to be followed by slumps rather than booms.[2] Such impacts can be amplified as in the case of Sri Lanka, where the post-war focus on infrastructure was also consistent with an anti-export bias, with growth dependent on non-tradables and domestic consumption.

A change of government in 2015 and a change in policy focus towards export-oriented growth failed to stem Sri Lanka's appetite for foreign borrowing. During both periods, 2010-2014 and 2015-2019, United States Dollars (USD) 2.5 billion (Bn) per annum on average was raised in excess of government foreign debt settlement needs (Figure 2.1). Here, IMF programmes helped; in fact, they are argued to have a catalytic effect to improve capital mobilisation from private lenders,

[1] Weerakoon, D. (2020). Sri Lanka's Debt Troubles in the New Development Finance Landscape. In Andreas Antoniades & Ugo Panizza (Eds.), *Global Debt Dynamics: Crises, Lessons,* Governance. London: Routledge.

[2] Warner, A.M. (2014). *Public Investment as an Engine of Growth.* IMF Working Paper WP/14/148. Washington, D.C.: International Monetary Fund.

Figure 2.1
Gross Foreign Capital Inflows and Debt Repayments



Notes: TBs = Treasury bill/bond investments.
Source: Based on data available from the CBSL.

but with downside risks in the long run in the presence of weak debt management capacities.[3]

The excess borrowing above and beyond debt settlements was in support of CBSL's underlying strategy of relying on market debt issuance for its reserve accumulation. The assumption was that principal debt payments could be rolled over and that the CBSL's reserve accumulation strategy will act as an automatic stabiliser. These can be false assumptions when faced with external shocks.[4] Indeed, such strategies come unstuck when countries face punitive rollover costs, as witnessed by Sri Lanka.

Thus, throughout more than a decade of foreign debt accumulation, Sri Lanka chose to overlook the fact that what works in normal times does not necessarily work when hit by an external shock. It continued to become ever more reliant on ISBs and bilateral commercial loans, despite such

Throughout more than a decade of foreign debt accumulation, Sri Lanka chose to overlook the fact that what works in normal times does not necessarily work when hit by an external shock.

[3] Fink, F., & Scholl, A. (2016). A Quantitative Model of Sovereign Debt, Bailouts and Conditionality. *Journal of International Economics,* Vol. 98, 176-190.

[4] See Institute of Policy Studies of Sri Lanka. (2013). Macroeconomic Performance and Outlook: 2012/2013. In *Sri Lanka: State of the Economy 2013*. Colombo: Institute of Policy Studies of Sri Lanka and subsequent reports.

sources being costly and carrying additional risks arising from currency mismatches. Indeed, the country has had one of the fastest transformations of its external debt composition, with the share of non-concessional debt from private creditors rising steeply from about 7% in 2006 to 55% by 2019. As a share of total outstanding foreign debt, ISBs accounted for 37.8%, with a smaller share of 4% held as foreign currency term financing facilities (FTFFs) and China accounting for another 10%. Thus, before the pandemic squeezed out many developing countries from capital markets, not only was a majority of Sri Lanka's external debt owed to private creditors but 70% of such private-creditor-owed debt was also issued as ISBs. As a share of GDP, ISBs accounted for 15.6%. With this foreign debt profile, Sri Lanka was highly vulnerable to refinancing risks and debt restructuring challenges as the pandemic unfolded.

2.3 Crisis Responses and Policy Missteps

Weak institutional and governance frameworks are at the root of a series of policy missteps in dealing with the unfolding impacts of the COVID-19-related economic fallout. These include: (a) an abrupt reversal of a revenue-led fiscal consolidation process in place since 2016, (b) the relegation of the existing inflation targeting framework to guide monetary policy and move towards direct financing of fiscal spending by the CBSL without any exit strategy in place, and (c) the adoption of a wholly unsupportable exchange rate policy within the context of misaligned fiscal and monetary policies.

2.3.1 Fiscal Policy Shock

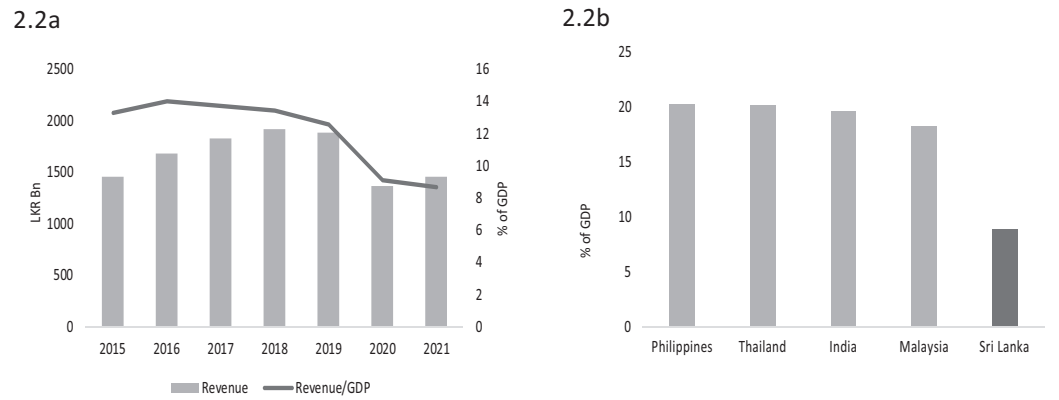
The incoming government's manifesto – Vistas of Prosperity and Splendour (VPS) – promised a 'new tax policy' with a slew of tax cuts which were promptly implemented in December 2019. Contained as these were in a political manifesto, these tax cuts did not go through any formal consultative process, despite their obvious impact on the economy over the medium to long-term. As stated in the VPS, the tax cuts were intended to provide a stimulus to an economy where GDP growth was sluggish, hitting an 18-year low of 2.3% by end 2019.

In the presence of a significant output gap, the argument for a fiscal stimulus is quite understandable. Indeed, from April 2019, monetary policy too began to be relaxed given an environment of low growth and a relatively low and stable rate of inflation. But, monetary policy measures have no impact on the real sectors of the economy, and that is where the leading role of fiscal policy becomes important. In pursuing this strategy, though, there were two compelling reasons why Sri Lanka should have focused on spending rather than the tax side.

First, the quickest results on the growth front will come from spending. When there is slack in the economy, a spending stimulus can be an effective tool, owing to a 'multiplier' effect. Money spent on an activity gets passed on as wages to a worker, who in turn may use the additional income on food and other purchases, raising demand for goods and services overall. By contrast, passing on the benefits of tax cuts to put more money in people's hands to boost consumption or investments takes longer. Tax cuts may never get passed on to consumers if prices are sticky downwards, while corporates consider other factors in their investment decisions besides lower taxes, such as policy and political factors.

Second, Sri Lanka's government revenue benchmarks fall well below comparator

Figure 2.2
Government Revenue and Peer Comparison



Source: Data from Ministry of Finance, Annual Report 2021; and IMF, Fiscal Monitor 2022.

thresholds. At the time of the tax cuts, the average revenue to GDP ratio for emerging market middle income (EMMI) economies of Asia was about 26%, whereas Sri Lanka's ratio was only half of that, at around 13%. Reversing hard-won tax reforms to address significantly low and declining revenue generation over the years is costly. This is especially so in the absence of any evidence for Sri Lanka that even if a low tax regime revives growth, it will translate into higher revenue collection. The tax cuts were estimated to trim about 25% off prevailing revenue projections. It was soon followed by a sovereign credit downgrade in December 2019 and swiftly spiralled into a series of downgrades over the next few months.

2.3.2 Monetary Policy Distortions

Theoretically and practically, an analytical understanding of the role of monetary policy in stimulating economic activity is undergoing some major paradigm shifts. The adoption of 'unconventional' monetary policy in the era of the global financial crisis (GFC) – where central banks created piles of new money through various measures – had some successes. However, conventional monetary policy tools of slashing interest rates to spur consumption, investment, and employment have become less effective since the GFC.

The problem for many advanced economies was that inflation and interest rates remained stagnant at historically low levels, even as new money was pumped in. These developments tested the relationship between unemployment and inflation, as denoted by the Phillips Curve – i.e. if unemployment falls too low, inflation will rise; if unemployment is too high, inflation will fall. The associated U-shaped curve began to flatten in the post-GFC era as many advanced economies, particularly Japan, experienced low unemployment and low inflation. As established norms failed to hold true in many of these countries, not only did they call into question the effectiveness of monetary policy tools, but they also suggest much more is at play in explaining these relationships in today's globalised economy. For instance, stickier upward wage adjustments owing to higher foreign competition, changes in technological advancements etc., are considered some explanatory factors.

In this environment of historically low interest rates, the notion that governments can exercise their 'monetary sovereignty' to create and print their own money to support stimulus efforts began to creep into the policy arena, gaining momentum in the wake of COVID-19. Clearly, advanced economies with convertible currencies can better manage the inherent risks and conflicts of interest. Emerging market economies like Sri Lanka are not so advantageously positioned. The risks are even higher for those saddled with large volumes of foreign currency denominated debt, given the likelihood of currency depreciation arising from injecting vast quantities of new money into the economy.

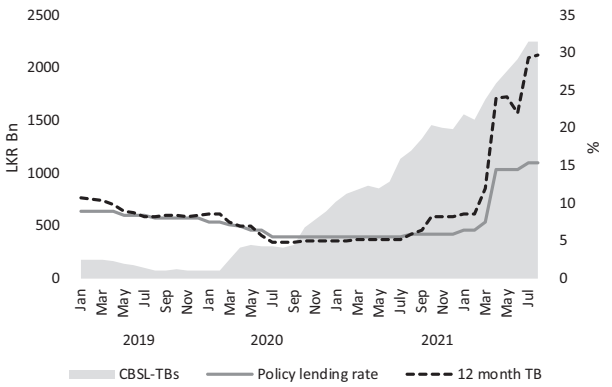
Notwithstanding such risks, the CBSL embarked on large-scale direct financing of fiscal expenditures while suppressing interest rates simultaneously through yield control measures. The CBSL holdings of government securities expanded by a staggering 2,000% in the two years between the onset of the crisis in March 2020 and March 2022. This seemingly open-ended monetary exercise sapped investor confidence further as its impacts on the exchange rate became all too evident.

2.3.3 The Exchange Rate Fallacy

Perhaps the most damaging policy blunder was to imagine that the CBSL can fix the exchange rate at an arbitrary rate it wishes to maintain and persist with the status quo, irrespective of mounting evidence of its unviability. The compulsion to insist on an artificially pegged exchange rate arises from the obvious drawbacks of a rapidly depreciating currency on the country's debt stock. The compulsion, therefore, is to maintain an overvalued rate to retain the domestic currency value of foreign debt from escalating. In the COVID-19 era, as capital inflows dried up, maintaining such a stance also necessitated the imposition of exchange and/or import restrictions to stop additional pressures on the exchange rate.

Thus, as Sri Lanka began to accumulate large volumes of costly foreign debt, currency mismatches have prompted the CBSL down this path on a regular basis. Indeed, an inclination to fix both the interest rate and exchange rate goes against the theory, that in principle, in a world of increasingly mobile capital, countries cannot fix their exchange rate and at the same time

Figure 2.3
Central Bank Direct Financing and Policy Interest Rates



Source: Based on data from the CBSL.

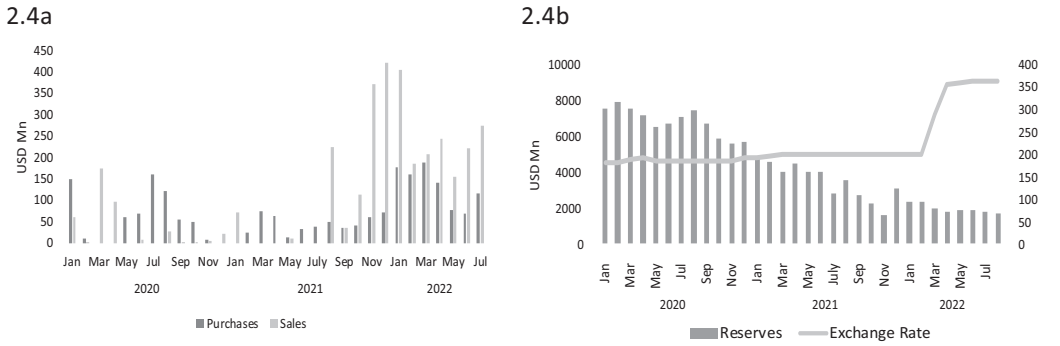
maintain an independent monetary policy.[5] The policy trilemma suggests that if an independent monetary policy – i.e. setting interest rates – takes precedence over an exchange rate target, then the exchange rate has to be allowed to move in line with market developments.

Sri Lanka's ham-fisted approach of mandatory conversions of inward foreign currency flows from the export of goods and services and a host of ad hoc import restrictions, whilst attempting to negotiate short-term swaps and credit lines, failed to raise investors' faith in the LKR. Having arbitrarily pegged the currency at LKR 200 to the USD in April 2021, the CBSL continued to persist with it, burning up even the limited official reserves in hand.

cyclical role, increasing when a recipient country is undergoing an economic crisis in support of household consumption smoothening behaviour. Whilst remittances may have continued to flow in, a large chunk was remitted through informal channels, to be converted to LKR at a premium relative to that set by the CBSL. As such, the CBSL's purchase of USD from the formal system to shore up reserves was severely hampered.

Having held on to an untenable fixed exchange rate for nearly a year, in March 2022, the CBSL announced a depreciation of the currency to LKR 230 per USD, and inexplicably, allowed the currency to be market determined thereafter. This abrupt policy reversal, with less than USD 2 Bn reserves in hand, and before any public

Figure 2.4
Forex Market Intervention, Reserves and Exchange Rate



Source: Based on data from the CBSL.

In fact, the exchange rate policy only served to create perverse incentives, shrinking even the available inflows. It saw the emergence of an informal parallel market, disincentivised inward remittances, especially from a crucial source – Sri Lanka's sizeable migrant worker population. Such remittances often play a useful counter-

announcement that Sri Lanka was formally seeking balance of payments (BOP) assistance from the IMF, exacerbated the subsequent foreign exchange market volatility. By June 2022, the LKR had effectively depreciated by 80% since the move to a floating regime.

[5] See Institute of Policy Studies of Sri Lanka. (2010). Growth and Stability in Post-conflict Economic Recovery. In *Sri Lanka: State of the Economy 2010.* Colombo: Institute of Policy Studies of Sri Lanka.

2.4 Restoring Macroeconomic Stability

Sri Lanka's macroeconomic mismanagement were avoidable policy errors. In the context of already elevated risks – weak public finances, high public debt levels and excessive exposure to foreign currency denominated debt – competent macroeconomic management was demanded. In particular, it required an understanding that the high foreign debt repayment schedule post-2019 meant extra vigilance relative to previous crisis episodes.

Upon completing the IMF's sixth review in November 2019 of Sri Lanka's then extended fund facility (EFF) arrangement, it was deemed that "external debt is sustainable, but rollover risks remain high over the medium term."[6] By March 2022, the IMF noted that the country's "public debt has become unsustainable."[7] In April 2022, Sri Lanka announced its inability to service external debt and defaulted for the first time in its history.

Through the worsening economic conditions, the government held on to an intractable position that IMF assistance was unnecessary. Indeed, Sri Lanka is familiar with the standard IMF policy prescriptions and could have well eased into such adjustments on the fiscal, monetary and exchange rate policy fronts, exiting gradually from the COVID-19-related emergency measures. Having demonstrated its recognition of the economic challenges and willingness to course correct, keeping the door open to negotiations with the IMF for BOP support, if necessary, then becomes the natural second step.

Having failed to put forward any credible policy measures whilst insisting that there was no need to seek IMF financial assistance, Sri Lanka is now in the unenviable position of having to implement a shock therapy of policy measures on stabilisation and liberalisation, especially on the macroeconomic front. The most crucial is to put the country back on the path of sustainable fiscal and debt trajectories.

2.4.1 Fiscal Reforms: Revenue Growth and Spending Compression

An IMF programme that puts debt sustainability at the front and centre of the adjustment process requires Sri Lanka to aim for a primary surplus within an agreed time frame. In the Staff Level Agreement (SLA) agreement reached in September 2022, a primary surplus of 2.3% of GDP is to be achieved by 2025. Debt begins to stabilise when the government's interest payment is exactly offset by a primary fiscal balance – i.e. the government fiscal balance excluding interest payments. With an estimated primary deficit of 4% of GDP in 2022, moving to a surplus within a compressed time frame will require substantive fiscal policy adjustments.

The focus is clearly on an ambitious revenue-led consolidation process. The major problem is that Sri Lanka's tax revisions and associated revenue estimates often fail to meet expectations. A failure to broaden the tax base, weak tax administration

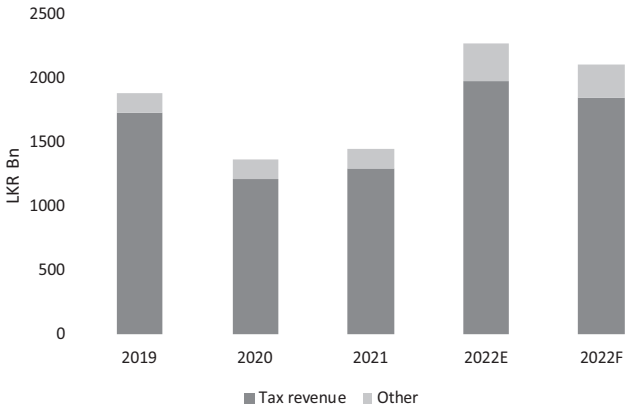
[6] International Monetary Fund. (2019). Sri Lanka: *Sixth Review under the Extended Fund Facility.* IMF Country Report No. 19/335. Washington, D.C: International Monetary Fund.

[7] International Monetary Fund. (2022). *Sri Lanka: Article IV Consultation.* IMF Country Report No. 22/91. Washington, D.C: International Monetary Fund.

and enforcement, various exemptions, and the structure of the economy itself lead to this outcome. In the case of the latter, the growing informalisation of the Sri Lankan economy and information paucity – with more than 60% of the workforce employed in the informal sector at present – make tax collection more difficult unless tax administrative structures are efficient and effective.

Sri Lanka has a regressive tax regime, but it is perhaps even more regressive because of an often overlooked factor – i.e. the spending side. The better off pay rather limited taxes but benefit enormously from free health, education, and many forms of subsidies such as subsidised fuel, electricity, water, etc. As such, the decision to reverse many of the 2019 tax revisions – offering relief to corporate and individual income taxpayers through lower rates and/or reduced thresholds – is in the right direction. Whilst consumption taxes such as Value-Added Tax (VAT) is seen as less harmful for growth, the return to a 15% rate announced in the interim

Figure 2.5
Revenue



Notes: 2022E refers to Budget estimates presented in November 2021; 2022F presents revised estimates presented in the interim Budget presented in August 2022.

Source: Data from the CBSL and Ministry of Finance.

Table 2.1
Government Recurrent Expenditures

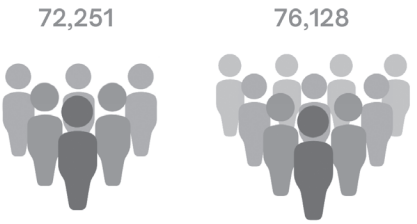
	As % of Total Revenue			As % of GDP		
	2019	2020	2021	2019	2020	2021
Salaries and wages	36.3	58.1	58.0	4.6	5.3	5.0
Defence	10.0	14.6	14.1	1.3	1.3	1.2
Interest payments	47.7	71.7	72.0	6.0	6.5	6.2
Subsidies and transfers	29.2	52.4	47.0	3.7	4.8	4.1
Households	24.1	44.6	40.9	3.0	4.1	3.5
o/w Pensions	12.0	18.8	18.5	1.5	1.7	1.6
Samurdhi	2.4	3.8	3.8	0.3	0.3	0.3

Source: Data from Ministry of Finance, Annual Report 2021.

Budget, effective from October 2022, will add to the already high and disproportionate economic burden on the poorer income households. To balance this, relief measures, especially an LKR 10,000 cash handout to 61,000 food insecure households for a period of four months, are to be implemented. Clearly, the dire state of Sri Lanka's public finances calls for such 'budget neutral' trade-offs. Any major revisions to tax structures raise questions about their impacts on growth as well as equity and social justice objectives of a government. However, given the urgency of restoring fiscal sustainability, equity issues might be better addressed through the spending side – to increase the incomes of the poor – rather than the revenue side of fiscal policy formulation.

▶ The Increase in Public Sector Employees - A Growing Burden

Despite the severe stress on public finances due to the COVID-19 outbreak and the impact on revenues from the 2019 tax cuts, **public sector recruitment expanded** during 2020-2021.



76,128 employees were recruited during **two years** (2020-21) alone while 72,251 were recruited for the **entirety of the previous five years** (2015-2019).

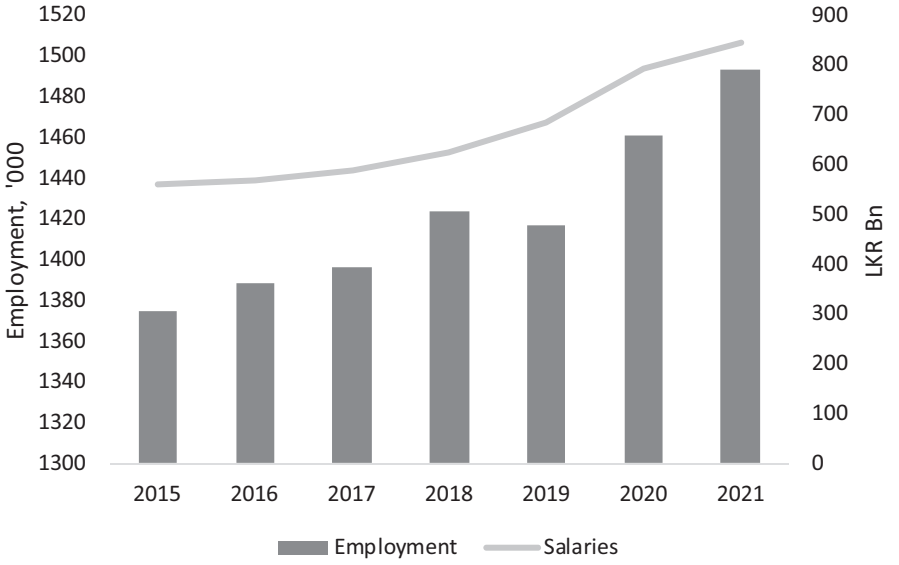
Source: Data from the Central Bank of Sri Lanka – Annual Report (various years).

The largest chunk of discretionary spending is on salaries and wages of public sector employees, including those spent on defence (Table 2.1). Despite the severe stress brought on public finances with the outbreak of COVID-19 and the impact on revenues from the tax cuts announced in 2019, fiscal profligacy and indiscipline were evident from the sharp increase to the public sector salaries and wages bill of 11% per annum on average during 2020-2021 (Figure 2.6). In fact, total public sector employment numbers expanded by 76,128 during these two years compared to an expansion of 72,251 over the entirety of the previous five years (2015-2019). Sri Lanka's state-owned enterprises (SOEs) too, continue to be a drain on expenditures, recording large pre-tax losses over the years. Their dismal performance is not only a drain on national financial resources but also a pressure point on the country's banking system, with the large state-owned banks often compelled to bankroll their day-to-day operations. The largest of the 52 SOEs recorded a loss of LKR 86 Bn before tax in 2021, with Sri Lankan Airlines (LKR 170 Bn), Ceylon Petroleum Corporation (LKR 82 Bn) and Ceylon Electricity Board (LKR 21.5 Bn) making the biggest pre-tax losses.[8]

With Sri Lanka's primary fiscal deficit at 6% of GDP in 2021, sizeable adjustments will have to be made on both revenue and expenditure fronts to place the country on a debt sustainable path. Sri Lanka cannot inflate its debt away, given the significant proportion of debt held in foreign currency. Any injection of LKR liquidity will lead to depreciating pressure on the currency and raise the domestic currency value of foreign debt. As a result, the nature of IMF-led adjustment processes requires that the macroeconomic consolidation is executed in a manner that will stop any government from spending its way out of the current crisis, limit help for the poor and restrict public investment.

[8] Annual Report, Ministry of Finance (Various years).

Figure 2.6
Public Sector Employment



Source: Central Bank of Sri Lanka. (2021). *Annual Report 2021.* Colombo: Central Bank of Sri Lanka.

2.4.2 Monetary Policy and Price Stability

The contractionary impacts of fiscal policy will be further reinforced through monetary policy adjustments. Sri Lanka's consumer price inflation is rising to historically high levels, with YoY inflation as captured by the National Consumer Price Index (NCPI) at 70.2% in August 2022, with annualised inflation at 25.9%.9 The last time the country saw elevated price instability was in 2008, when YoY inflation captured by the Colombo Consumer Price Index (CCPI) peaked at 28.2% and annualised inflation reached 22.6%. However, the current YoY pickup has been much more rapid, suggesting that Sri Lanka is set to see record levels of annual inflation in the months to come (Figure 2.7).

Rising inflationary pressure is a global phenomenon. What was considered a 'transitory' phenomenon early on gave way to aggressive monetary tightening the world over, as global inflationary pressures intensified sharply following Russia's invasion of Ukraine in early 2022. The war is not only threatening global economic recovery, but it is also exacerbating adverse supply chain disruptions battling a combination of challenges, including a resurgence of COVID-19 developments in China. In the United States (US) and the United Kingdom (UK), for instance, inflation is set to hit a 40-year high. In response, countries have entered into a monetary policy tightening cycle in 2022. New Zealand and South Korea were the pioneers of the hiking cycle, but others (the US, UK, etc.) have followed suit. Supply-side factors are playing a key role in the

[9] Both the NCPI and the CCPI are affected by the typical 'substitution bias' of any consumer price index – i.e. of not adjusting for changes in household spending patterns very often. At a minimum, weights should be updated at least every five years. In the case of Sri Lanka though, with household spending patterns still reflecting 2013 benchmarks, the inconsistencies are likely to be even greater.

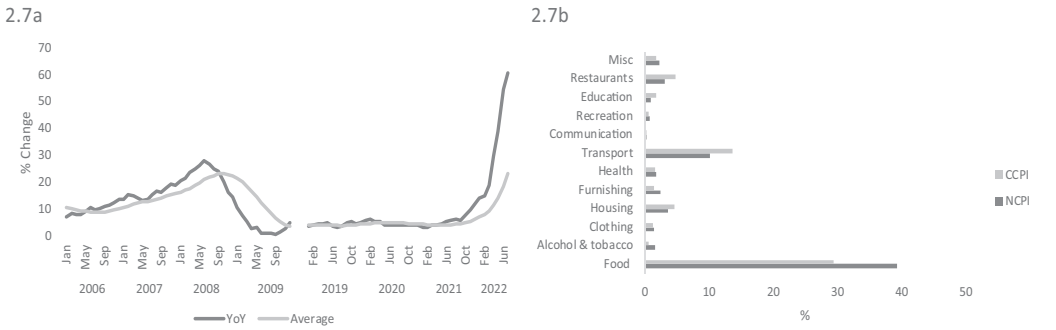
inflation upswing and interest rate hikes will not address these, but rate increases are aimed at discouraging higher price expectations from feeding back into the cycle.

In many of these economies, buoyant demand, tight labour markets and wage increases are amplifying the food and energy price shock to drive up inflation. In the Sri Lankan case, while global price pressures have also fed into its current inflationary bout, the major driver is a combination of less desirable domestic factors. This includes a sizeable injection of liquidity by the CBSL as direct financing to meet government expenses, the 'pass through' from a large depreciation of the currency and disruptions to food production from the abrupt ban on chemical fertiliser use.

By contrast, when inflation is driven largely by excess liquidity and demand, price increases across goods and services tend to be more uniform. Notwithstanding this, demand is also excessive, and tighter monetary policy is needed to return it to a normal level.

Thus, despite food and energy accounting for a disproportionate share of inflation, anchoring price expectations is crucial. In particular, the risks of persistent and strong nominal wage growth in domestic price settings have to be avoided. The CBSL's monetary tightening commenced in August 2021 and by March 2022, there had been a rather timid tightening of 200 basis points in total despite YoY inflation having already crept into double-digit figures by November 2021. In the absence of timely and adequate responses to

Figure 2.7
Consumer Price Inflation and Sector Contribution



Source: Based on data from DCS.

Overall, the strength of inflation appears mainly to reflect the large increases in global energy and higher food prices, exacerbated by the loss in the LKR value by 80%. Food inflation contributes nearly 40% towards the increase in inflation in the NCPI (with a weight of 44%), whilst its contribution in the CCPI (with a weight of 28%) is at a lower 30%. Transport is the second largest contributing 10-13% in both indices (Figure 2.7b).

counter spiralling inflation, the CBSL resorted to a sharp 7% increase in policy rates in April 2022.

The hard and fast increase in policy interest rates is clearly intended to signal the CBSL's hopes of anchoring inflation expectations. The full effects of monetary policy on inflation typically take a few quarters to appear. In July 2022, the CBSL imposed another 100 basis points increase as

YoY inflation continued to climb. The unbearable squeeze on households' real disposable incomes – a large contributor to mounting public unrest, alongside queues and shortages – will continue for some months as tax increases and utility pricing adjustments kick in. The cost-of-living pressures will continue to hit the lowest income households hardest, as they spend a greater proportion of their income on food and fuel.

Given that inflationary expectations are not as well anchored to begin with in emerging markets like Sri Lanka, it appears the only remedy on hand now to rein in rampant inflation is through a forced recession. So far, fiscal policy adjustments (tax increases) are lagging behind monetary policy. In the event, the government's interest costs on newly issued debt are rising substantively, even as the CBSL continues to provide direct financing to the Treasury, offsetting efforts to anchor inflationary expectations. Sri Lanka's indebtedness will also rise as interest rates exceed nominal GDP growth.

Real interest rates matter in maintaining price stability. The upward pressure on inflation will not dissipate immediately, as higher consumption taxes and utility prices kick in. If inflation keeps edging up, interest rates will have to keep rising if negative real interest rates are not to provide any kind of stimulus. Inflation will hopefully ease over time with weak demand growth. The financial and economic crisis also means that nominal wage growth will be less persistent as private businesses struggle and the public sector faces unrevised expenditure limits.

Price stability must assume primacy in the CBSL's monetary policy framework. Most importantly, though, macroeconomic policy setting must work on all fronts simultaneously as the country can no longer afford any sequential adjustments. Higher interest rates in the current context of a crisis of confidence overall in the economy, and especially on exchange rate risks, means that monetary tightening may also not help to pull in foreign direct investment (FDI) inflows to stabilise the LKR either. If at all, Sri Lanka is likely to see short term capital flows pick up, which are inherently more volatile and therefore, destabilising.

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2.4.3 Setting a Market-driven Exchange Rate

The LKR saw its steepest average depreciation in 2022, surpassing even the transition from a fixed exchange rate to a managed float at the height of Sri Lanka's economic liberalisation programme in 1977. In the interim, the country has run persistent deficits on its fiscal and current accounts to live beyond its means, generating foreign exchange crises on a regular basis, as evidenced by its many IMF programmes. The deeper causes of the current unprecedented currency crisis are rooted in the country's economic policy and its model of economic growth over the last decade, and the accompanying transition to foreign commercial borrowing to bridge its savings-investment shortfalls.

The pressure on the currency will ease a little with the decision to halt foreign debt repayments which total at least USD 4 Bn per annum in respect of government debt alone. However, with limited prospects of further bilateral credit lines and loans being extended until the IMF Executive Board signs off on the EFF – which is contingent on how quickly Sri Lanka can come to an agreement with its assorted creditors – substantial uncertainty will continue with regards to exchange rate stability. While export earnings have shown a relatively strong recovery in the first seven months of 2022 amid severe economic disruptions, other forms of capital inflows are well below normal (Figure 2.8). The boost to export price competitiveness from the currency devaluation will also begin to erode as domestic price inflation catches up. Additionally, global developments will also take a toll. As many countries enter a monetary tightening cycle with the associated impacts on their currencies, cross-country exchange rate movements will see the LKR coming under pressure.

The most pressing challenge will be to build up adequate reserves for at least 4-5 months of import cover given that only one month of import cover was available by July-2022. This effectively means a target of at least USD 7-8 Bn

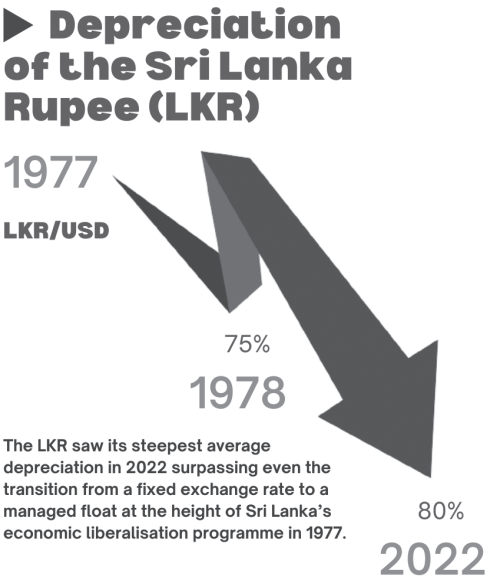
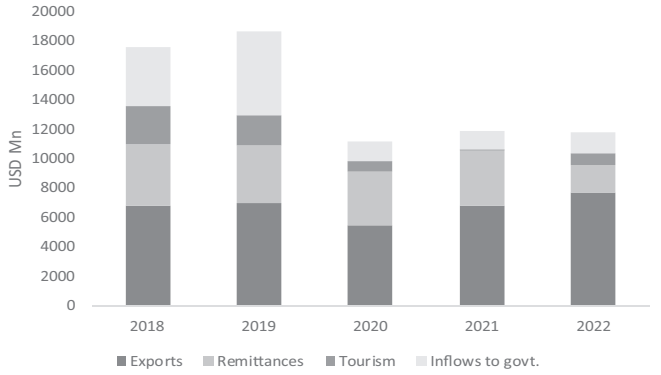


Figure 2.8
Foreign Capital Inflows, Jan-July



Source: Data from CBSL.

from the current reserves of USD 1.8 Bn (which includes a swap facility from China equivalent to USD 1.5 Bn with conditions on its usage). To do this, the CBSL will have to rely on IMF funding (approximately USD 2.9 Bn spread over the four year EFF programme), other short-term swap arrangements and the purchase of USD from the domestic market until Sri Lanka can regain access to international capital markets at reasonable rates. In pursuit of this strategy, the CBSL purchase of USD has picked up as of April 2022, whilst limiting the sales to defend the currency (see Figure 2.4a).

The thin forex market means that Sri Lanka's exchange rate vulnerabilities will persist for some months. Indeed, its volatility and instability over time continue to generate divisions about the most appropriate exchange rate regime for the country. At extreme ends are fixed and a floating regime where the former offers the prospect of stability while the latter offers control over policy. Sri Lanka's recent crisis has seen renewed debates on the merits of a fixed exchange rate through a currency board, for instance. Its advantages are stability and confidence. However, if imbalances build up and there occurs a speculative attack, either interest rates have to be pushed up to defend the currency – damaging economic prospects – or the central bank must build large volumes of reserves to fight off speculators. Additionally, it helps if domestic wages are not sticky – i.e. these not only go up but down as well – for such a regime to function effectively.

These conditions are not present in the Sri Lankan context to support a fixed exchange rate regime. But, a free float is also problematic. There can be a high degree of volatility, undermining confidence, especially where there is little or no independence given to central banks. For emerging markets that are dependent on foreign capital, a free float also raises the risks of having to hike interest rates to prevent volatility. A floating regime, however, does hold the advantage of allowing countries to adjust to external shocks through the exchange rate. This matters for a country like Sri Lanka that is highly vulnerable to shifts in global commodity prices, and where wages and domestic prices are sticky.

One of the IMF conditionalities is that the exchange rate regime be market-determined and flexible. It implies a floating regime with limited flexibility to smoothen volatility. Given Sri Lanka's worries on the inflation front, restoring

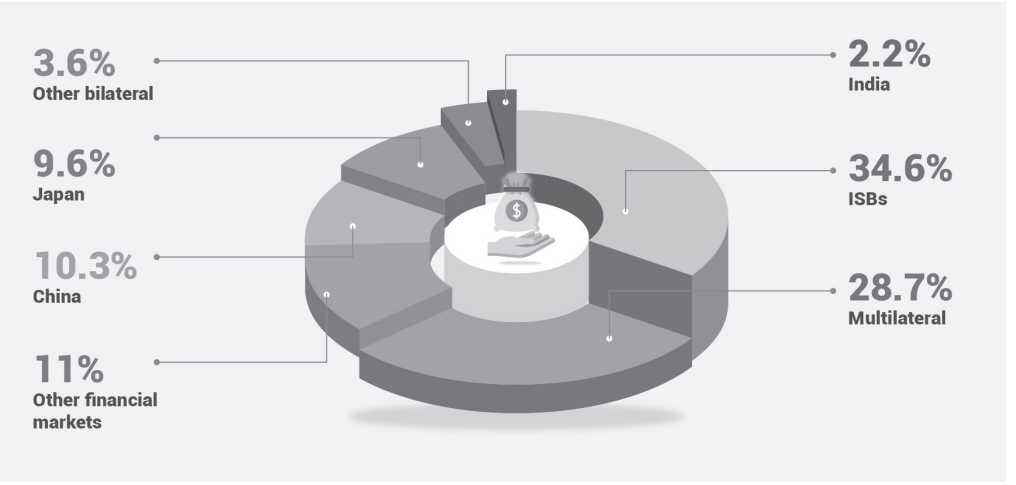
stability and confidence in the exchange rate is a priority. If the LKR continues to depreciate, it will also make Sri Lanka's foreign debt liabilities harder to repay even after the conclusion of debt restructuring negotiations.

2.4.4 Debt Restructuring Challenges

Sri Lanka's central government debt holdings at end 2021 indicate that ISBs account for the largest share (35%), with China (10.3%) and Japan (9.6%) as the single largest bilateral lenders. But, this is not the total picture as in any restructuring, where all categories of sovereign debt denominated in foreign currency have to be collated. This includes collateralised liabilities and the debts of SOEs where Chinese financing is likely to be quite prominent. An added complexity to a sovereign debt restructuring arises if the debt sustainability analysis demands a restructuring of domestic debt as well. This means additional spillover impacts on Sri Lanka's banking sector, as well as on corporates and households. The regulatory forbearance offered to the financial sector to mitigate the pandemic's impact on the economy is yet to be fully reflected in balance sheets. Collectively, these impacts can add to the economic challenges that the country faces.

On sovereign debt, the complex creditor landscape of today makes governments reluctant to entertain restructuring, but as global debt problems mount, such restructurings are likely to become more frequent. The world economy has witnessed three big debt disruptions – the Latin American debt crisis of the 1980s, the Asian financial crisis of 1997-98, and the GFC of 2008. Over time, there have also been different indicators and thresholds used internationally to assess debt sustainability and mitigate such crises. Since the 1990s, the most commonly used indicators and thresholds for assessing external debt sustainability are those of the highly indebted poor countries (HIPC) initiative, which looked at debt in relation to exports and budget revenue, as well as debt service in relation to exports.

Sri Lanka: Foreign Debt Summary
(Central Government), 2021



Source: Data from the Central Bank of Sri Lanka, (2021).

Box 2.1
Economic Crises, Debt Defaults and Recovery

Economic crises and related debt defaults can have large and lasting adverse impacts on an economy. The causes of debt crises are well known. These include rapid debt accumulation, vulnerability to sudden global shocks, and domestic vulnerabilities amplified by unsustainable macroeconomic policies. The latter can be in the form of various combinations such as weak revenue collection, monetary financing of fiscal deficits and the presence of high external debt with low international reserves. The outcomes of crises episodes are lower growth, higher inflation, and setbacks in the fight against poverty and other development goals.

As Sri Lanka begins the arduous task of implementing harsh recovery measures, the economic impacts and consequences of the sovereign debt crisis are yet to be fully understood. There is little consensus in the literature about the economic impact of a debt crisis, with the evidence ranging from sharp and/or persistent recessions after defaults to those who find little to no impact (Esteves, Kenny & Lennard, 2021). The reasons for the uncertainty are argued to be because defaults are not random and these are not created alike, thus making it difficult to quantify the cost of defaults across widely varying episodes. However, available research does confirm that post-default restructurings are associated with the most severe and protracted declines in GDP and investment (Asonuma et. al., 2019). Typically output is seen to fall on impact, peak after two years and revert to trend by year five (Esteves et. al. 2021). A key channel for the output contraction includes harmful impacts on a country's traded sector.

The role of an IMF bailout in mitigating the possibility of subsequent defaults is also relevant. The underlying assumption is that improved macroeconomic performance will be followed by renewed capital market access. Indeed, the IMFs own research (Balima & Sy, 2019) using a panel of 106 developing countries from 1970-2016 find that that IMF supported programmes significantly reduced the likelihood of subsequent sovereign defaults as countries experienced a slight improvement in their sovereign credit rating, and a decrease in both government debt-to-GDP and fiscal deficit-to-GDP during the programme period. For defaulting countries though, higher creditor losses are found to be associated with significantly higher post-restructuring spreads and longer periods of market exclusion (Cruces & Trebesch, 2013).

Sources: Trebesch, C. (2019). Resolving Sovereign Debt Crises: The Role of Political Risk. *Oxford Economic Papers, 71(2),* 421–444; Fang, C., Schumacher, J., & Trebesch, C. (2021). Restructuring Sovereign Bonds: Holdouts, Haircuts and the Effectiveness of CACs. *IMF Economic Review, 69*(1), 155-196; Balima, H.W., & Sy A.N. R. (2019). *The Impact of Bailouts on the Probability of Sovereign Debt Crises: Evidence from IMF-Supported Programs.* IMF Working Paper. Washington, D.C.: International Monetary Fund; Esteves, R., S. Kenny and J. Lennard (2021). *The Aftermath of Sovereign Debt Crises: A Narrative Approach.* CEPR Discussion Paper 16166. Paris: Center for Policy Research; Asonuma, T. Chamon, M. Erce, A. and Sasahara, A. (2019). *Costs of Sovereign Defaults: Restructuring Strategies, Bank Distress and the Capital Inflow-credit Channel.* IMF Working Paper. Washington, D.C.: International Monetary Fund. Esteves, R., J. Lennard & S. Kenny. (2021). *The Aftermath of Sovereign Debt Crises.* Discussion Paper 16166. Paris: Center for Economic Policy Research (CEPR); Cruces, J.J & C. Trebesch. (2013). Sovereign Defaults: The Price of Haircuts. *American Economic Journal,* 5(3), 85-117.

Given that there were problems in using these as benchmarks, the IMF and World Bank (WB) have since developed a new long-term debt sustainability framework (DSF) to guide lending to low-income countries (LICs).[10] Unlike the HIPC, the DSF focuses on total debt. The debt coverage includes public and publicly guaranteed external debt, private non-guaranteed and short-term external debt. The DSF thresholds for LICs are linked to the quality of a country's policies and institutions.[11] The DSF for MICs is carried out under the market access country (MAC) framework, which assumes that such countries do not rely on concessional sources of financing and have significant access to other sources, such as international capital markets.

Despite adopting more rigorous debt resolution frameworks, developing countries were identified as being at risk from debt distress even prior to the full onset of the COVID-19 shock.[12] In particular, countries that have relied on funding on commercial or near commercial terms were identified as facing increased vulnerability to domestic and external shocks in view of rising debt service burdens. At the same time though, highly indebted countries like Sri Lanka remain reluctant to apply the remedies for debt sustainability.[13] First, governments are wary of asking banks and bondholders for debt relief for fear that it could reduce their ability to borrow from international capital markets in the future. Second, governments are also reluctant to do so under standard IMF policy prescriptions on fiscal consolidation. It is argued that such measures often lead to a stagnant or shrinking economy, at least in the short run, and exacerbate debt burdens needlessly. Thus, standard IMF conditionalities can help long-term debt restructuring but can often fail to address immediate refinancing pressures. Despite such concerns, for countries contemplating a debt restructuring, adopting an IMF programme may be conditioned as a means of underwriting the data, economic plan and the promise of macroeconomic and fiscal supervision.

In spite of the mounting debt challenges with the onset of COVID-19, progress towards an international debt restructuring architecture has been slow. The Group of 20 (G20) set up a debt service suspension initiative (DSSI) whereby leading economies agreed to a temporary debt service standstill on bilateral official loan repayments from 73 poorest countries. The deferment for 2020 was extended to 2021, with repayments to be serviced after five years. The IMF provided liquidity relief to EMEs by allocating enhanced special drawing rights (SDRs).

There is, however, much more to be done globally to address the problem of unsustainable debt levels. The complex creditor landscape – whereby EMEs have borrowed proportionately more from international bond markets and China – has made debt crisis resolutions far more challenging than in the past. The DSSI, for instance, not only excludes a non-Paris Club member like China, it also does not compel private creditor participation, making it more difficult to bring dispersed private bondholders to the negotiating table.

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[10] The DSF provides a common framework to analyse the debt and debt service dynamics at an aggregate level, under a baseline scenario and a set of standardised economic shocks.

[11] It presumes that countries with strong or good policies and institutions are more likely to be able to shoulder higher debt burdens and, therefore, are less likely to fall into debt distress, than countries with weak or poor policies and institutions.

[12] International Monetary Fund. (2020). *The Evolution of Public Debt Vulnerabilities in Lower Income Economies.* Policy Paper No. 20/003. Washington, D.C.: International Monetary Fund.

[13] Weerakoon, D. (2022). *Sri Lanka's Sovereign Foreign Debt: To Restructure or Not.* Retrieved July 10, 2022, from Talking Economics: https://www.ips.lk/talkingeconomics/2022/01/12/sri-lankas-sovereign-foreign-debt-to-restructure-or-not/

To address these gaps, at least in part, the G20 reached an agreement on a Common Framework for debt treatments for DSSI eligible countries. Its value added is to bring the newer bilateral creditors like China into a formal debt relief process. While the Framework also stipulated that private creditors would have to provide comparable relief on the debt owed to them, there is no agreement or clarity on how this will be enforced.

In these conditions, private creditors prefer a case-by-case approach, rather than a blanket deal. They will weigh the upfront losses of a debt standstill and restructure against the total magnitude of losses in the event of a default. For EMEs with a complex creditor landscape, a coordinated effort requires the formation of creditor committees. The composition of such committees – inclusive of large institutional investors, hedge funds, etc., – is critical to obtain a relatively quick resolution. In entering restructuring talks, creditors will also demand to do so on the principle of comparable treatment in any proposed debt reprofilings and restructurings. The creditors will be mindful, especially in the face of new geopolitical power rivalries, that any relief offered to one party does not give preferential treatment to them over others or that such relief is used to pay off other creditors. Thus, there are no guarantees of fast and efficient mechanisms, and countries still risk having to fight creditor lawsuits from those who may hold out. These challenges and complexities point to the need for urgent efforts at the multilateral level to improve coordination and a resolution mechanism across a diverse range of creditors as the global debt problem intensifies.

All of the above meant that Sri Lanka should have done everything within its powers to avoid even a pre-emptive debt restructuring through a timely course correction on its macroeconomic policy. Having failed to do so, the country fell to the even more damaging and inherently costly route of a debt default. Sri Lanka's negotiations with its creditors are bound to prove complex. From the outset, China was disinclined to go along with an IMF-aligned debt restructuring process; it has stated its preference to refinance the debt due for repayment which may not find favour with Sri Lanka's other creditors, especially if as expected, the debt restructure requires that creditors take a haircut. Experiences in other countries point to bondholder preference for maturity extensions and interest rate adjustments rather than the more costly adjustment to capital owed. Already, some dissatisfied bondholders have resorted to legal remedies. All of this means that the time frame for finalising agreements amongst all creditors is unclear; at best, if Sri Lanka manages to have all the loose ends tied up within six months of commencing negotiations, it would have done well. If the process is smooth, then a debt restructuring removes a major factor that inhibits economic growth by freeing up fiscal space.

2.5 Conclusion: A Hard Landing on Growth, Employment and Poverty

As the cost-of-living squeeze continues, the fiscal stimulus shrinks, and monetary policy tightens further, Sri Lanka's GDP growth will likely see the sharpest contraction in its post-independence history. The IMF policy mix will automatically bring about a cut in national spending, primarily via consumption. The currency depreciation implied by a market determined and flexible exchange rate will push up prices, tax and spending cuts will erode incomes, and high interest rates will squeeze demand. With a roll-back of LKR liquidity,

As the cost-of-living squeeze continues, the fiscal stimulus shrinks and monetary policy tightens further, Sri Lanka's GDP growth will likely see the sharpest contraction in its post-independence history.

credit growth to the private sector began to decelerate almost immediately following the April 2022 hike in interest rates (Figure 2.9).

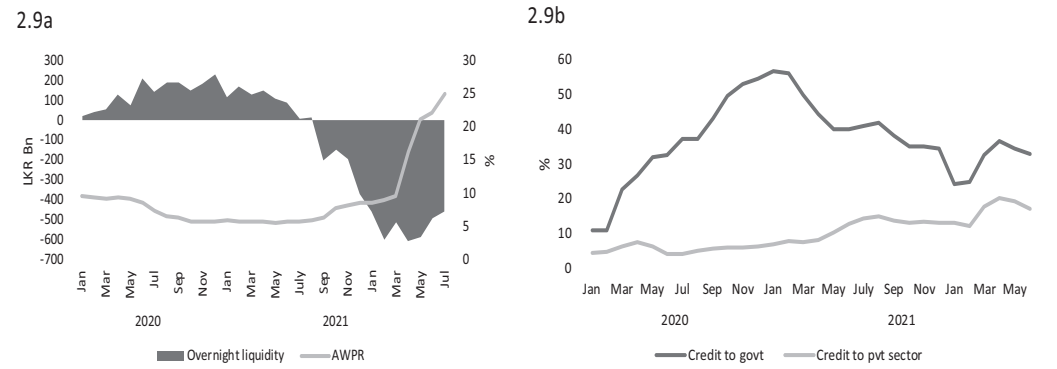
Sri Lanka's rebased national accounts using 2015 as the new base year indicate revised GDP growth of 3.3% in 2021 from a contraction of 3.5% in 2020.[14] The expected contraction in 2022 is estimated to be anywhere upwards of 8%.[15] In the first half of 2022, DCS data indicate that the economy shrank by 4.8%. Weak growth means lower revenue collections and debt ratios too will worsen, at least in the short term. The magnitude of the contraction essentially means that the economic crisis will now add to the pandemic-induced output losses. The impact of such losses on the level of output can be permanent, even if not on the growth rate. The extent of any permanent output loss will depend on the depth of the downturn and how long it persists.

Typically, the harsh adjustment costs will prevail for at least three years before any improvements are felt by the average citizen on the economic front. This painful period ahead holds substantial political and social risks for the country at large. Much of the visible public unrest is spearheaded by the country's disaffected youth. With already high youth unemployment – at 18.2% amongst 20-29-year-olds – the sharp drag on growth led by contractions in industry and services sectors will mean even fewer opportunities for more productive employment. The long-term costs to the country of the associated disenchantment can be enormous. The crisis of confidence on both the political and economic fronts may see Sri Lankan firms preferring to expand their operations regionally rather than domestically for the foreseeable future. If productive jobs that offer decent work conditions fail to materialise, then the current impetus to migrate in search of employment and better living standards will simply continue to gather momentum. Sri Lanka can lose a generation of much-needed talent as a result.

[14] The IMF statistical division recommends a change of base year every fifth year to include expanded coverage of economic activities.

[15] Financial Times. (2022, August 19). *CB Projects Economy to Contract by 8%.* Retrieved August 19, 2022 from the Financial Times: https://www.ft.lk/front-page/CB-projects-economy-to-contract-by-over-8-in-2022/44-738879

Figure 2.9
LKR Liquidity and Credit Contraction



Source: Data from the CBSL.

The highly regressive impacts of the current cost of living squeeze will also see a swelling number of poor in the country. Indeed, it is often the case that economic crises also bring with them large and undesirable distributional impacts. Businesses and firms generating revenues and incomes in hard currencies will be better leveraged against falling living standards. For the already indebted poor, household debt will increase substantially as interest rates rise, while for others, the value of their savings will be severely eroded. The combination of rising unemployment, poverty and perceptions of inequities can continue to fuel a political backlash. In the short to medium term, the government will have to fashion a fiscal adjustment process that will provide relief to the poor if the entire adjustment process is not to be derailed and the country engulfed by political ruptures.

The first step is to re-establish Sri Lanka's economic credibility. Having thrown away all options to retain some essence of policy autonomy, Sri Lanka must now commit to the fiscal, monetary and exchange rate policy adjustments as required by the IMF and proceed to implement these as swiftly as possible. Then, it will clear the way to unlock other financing options for budgetary support. As stability and confidence return, measures to support growth can then begin in earnest.

Of the two common traditions for explaining growth, the dual-economy approach distinguishes the traditional and modern sectors, whereby economy-wide growth depends largely on the rate at which resources (largely labour) can migrate from the traditional to the modern. The second approach, based more on the neoclassical model, posits that growth depends more on the incentives to save, accumulate human and physical capital, and innovate by developing new products and processes.[16]

While there is substantial overlap in policies that promise to drive growth within the two growth traditions, the convergence of a rapid structural transformation (industrialisation) and significant improvements in fundamentals (governance and human capital) holds the best promise for

[16] Hausmann, R., Rodrik, D., & Velasco, A. (2006). Getting the Diagnosis Right. *Finance and Development, 43*(1).

sustained high growth.[17] A policy agenda to facilitate a resource transfer to bring this about requires: 1) reforms of political and economic institutions, 2) reforms for macro stability, 3) reforms to raise productivity and competitiveness through international integration, 4) reforms for factor accumulation and technological improvement, and 5) reforms for providing opportunities for all.

If Sri Lanka's economic reform efforts are not to come unstuck, providing opportunities for all must lie at the core of any policy design. There is much research evidence to support the intuitive understanding that reform efforts have political costs. These are particularly high when implemented relatively late in electoral cycles as well as when enacted in periods of weak economic conditions. This is because overall gains from reforms materialise only gradually, and fewer resources are available to governments to compensate those adversely impacted when economic conditions are tight. As the country embarks on this arduous task, the government must also build strong ownership and consensus that a reform effort is unavoidable through a robust and inclusive consultative process.

[17] Rodrik, D., McMillan. M., & Sepúlve, C. (2017). *Structural Change, Fundamentals and Growth: A Framework and Case Studies.* Washington, D.C.: International Food Policy Research Institute.

3. Global Economic Developments and Impacts on Sri Lanka

3.1 Introduction

As expected, global economic activity improved in 2021 with the relaxing of pandemic-related restrictions and increased aggregate demand in advanced economies. Despite this promising start on the road to recovery, 2022 began with the escalation of tensions between Russia and Ukraine. This has resulted in increased economic sanctions by the Western allies which have created ripple effects; prices of many essential global commodities including fuel, fertiliser and wheat have ballooned, increasing inflationary pressures in the global economy. To add to concerns, China's continuation of a zero coronavirus (COVID-19) policy has lowered its future growth projections. Lockdowns have continued in China including in key manufacturing hubs, which has tightened the bottlenecks in global supply chains, further worsening global recovery efforts.

Due to the high inflationary environment, many countries have initiated monetary tightening cycles, including the United States (US), which initially increased interest rates by 25 basis points in March 2022. In June, the Federal Reserve increased interest rates by 75 basis points, its largest adjustment since 1994. Meanwhile, the Bank of England increased interest rates by 25 basis points to 1.25% in June. The interest rate expectations are currently on an upward trend, as many central banks struggle to manage inflation expectations. In June, the European Central Bank (ECB) announced that interest rates will increase by 25 basis points in July, following trends in other Western economies. This is set to create further economic uncertainty, especially in developing and emerging markets that are threatened by capital flight, while vulnerabilities on the fiscal side stiffen as interest rates rise and the cost of borrowing increases. Developing and emerging markets, especially low-income countries (LICs) are already facing a huge divergence in vaccine rates viz. rich countries which has impacted the economic recovery of these nations.

Amidst these developments, the Sri Lankan economy experienced an acute foreign exchange crisis during 2021-2022 and saw its currency depreciate by over 80% in March 2022. The shortage of foreign currency reserves and associated shortages of critical imports have placed Sri Lanka in an extremely unenviable economic position and resulted in tremendous political instability. Continuing high international oil prices on the heels of the Russia-Ukraine war and reversals to a recovery in tourism and remittances are worsening external sector imbalances, while the shortage of critical imports, power outages and social unrest are taking a toll on the country's export sector. This chapter examines some burning issues related to the external sector, paying particular attention to the global economy and its impacts on the Sri Lankan economy.

3.2 COVID-19 and Geopolitical Uncertainty

The COVID-19 pandemic has resulted in severe health and economic crises with dire societal consequences affecting most of the global population, with more than 500 million (Mn) confirmed cases and over 6 Mn deaths.[1] The number of cases currently exceeds 6% of the global population, signifying the scale the pandemic has reached since its inception.

The economic toll of the COVID-19 pandemic is yet to be fully understood. According to the World Bank, the pandemic has resulted in lower average incomes, with average incomes for the bottom 40% declining by 6.7%, based on the pre-pandemic projections. The United States Dollars (USD) 1.90 poverty rate has risen from 7.8% to 9.1%, while the USD 5.50 poverty rate has risen from 40% to 42%, thus increasing inequality.[2] The pandemic has exposed gaps in preparedness and economic safety nets globally. Governments and businesses have struggled to contain social instability, disruptions in essential services and challenges to the labour force such as increased unemployment and plunged labour force participation rates.

Despite this, considerable improvements have taken place over the past year. Global vaccination rates have accelerated, with over 65% of the world's population receiving at least one vaccine dose.[3] The rapid escalation is evident in terms of the global vaccine rate for a single dose increasing from 5% in April 2021 to 64% in April 2022. Despite such progress, inequities abound, which are likely to be heightened by rising geopolitical conflicts.

3.2.1 Vaccine Inequality, Virus Variants, and the Future of COVID-19

Country-specific budget constraints, limitations in infrastructure and the resultant economic trade-offs have converted vaccine inequality into a growing global crisis, with a global divide in the distribution of vaccines. Data suggest that while around 82% of the people in high and upper-middle-income countries have received one dose of a COVID-19 vaccine, only 18% in LICs have received the same.[4] Many high-income countries (HICs) have been criticised for acting in self-interest, hoarding vaccines to vaccinate their populations at a faster rate.[5] Most poorer countries had no choice but to rely on the vaccine sharing arrangement COVAX (COVID-19 Vaccines Global Access) which aimed to provide two billion (Bn) doses by end of 2021. Yet, due to production constraints, bans on exports and vaccine hoarding by rich countries, this programme had to slash its production forecasts. Figure 3.1 suggests an overwhelming gap in vaccination rates according to country income status.

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1 United Nations Conference on Trade and Development. (2022). *Tapering in a Time of Conflict.* Geneva: United Nations Conference on Trade and Development.

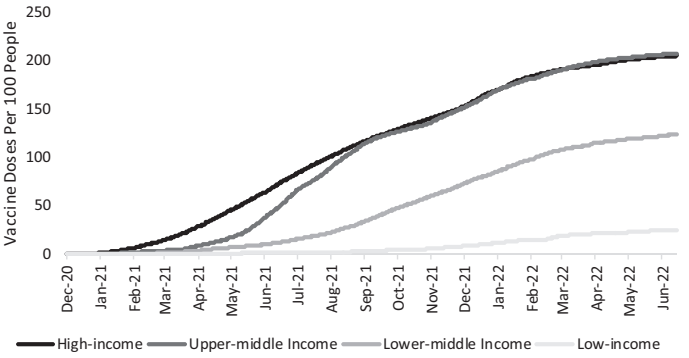
2 Hill., Ruth, Mahler., D.G, Narayan, A., & Yonzan, N. (2021, October 07). *COVID-19 Leaves a Legacy of Rising Poverty and Widening Inequality.* Retrieved May 05, 2022, from World Bank: https://blogs.worldbank.org/developmenttalk/COVID-19-leaves-legacy-rising-poverty-and-widening-inequality

3 Our World in Data. (2022). Coronavirus (COVID-19) Vaccinations. Retrieved May 05, 2022, from Our World in Data: https://ourworldindata.org/covid-vaccinations

4 *Ibid.*

5 Tatar, Moosa., Shoorekchali, J.M., Faraji, M.R., & Fernando, A.W. (2021). International COVID-19 Vaccine Inequality Amid the Pandemic: Perpetuating a Global Crisis?. *Journal of Global Health, Vol. 11.*

Figure 3.1
COVID-19 Vaccine Doses Administered Per 100 People, by Income Group



Source: Our World in Data. (2022). Coronavirus (COVID-19) Vaccinations. Retrieved May 05, 2022, from Our World in Data: https://ourworldindata.org/covid-vaccinations

The outlook for vaccine equality in 2022 is also bleak. In the short-term, LICs will continue to compete for the purchase of vaccines, whilst hoping that the COVAX initiative has faster production rates. In the medium-term, there needs to be sustained efforts to develop and expand regional vaccine production. This is imperative, as the longer and more widely the COVID-19 virus circulates, the greater the likelihood of new mutations which evade vaccines. If this continues, greater emphasis will again be placed on mobility restrictions, further impacting global economic prospects.

Recent predictions on the COVID-19 virus suggest that the pandemic is becoming endemic,[6] which will continue to circulate in pockets of the global population in years to come, causing localised outbreaks where it has been eliminated. While the Omicron variant has become the

Table 3.1
Current and Previously Circulating COVID-19 Variants

Current variants of concern		
Name	Lineage	Status
Omicron	B.11.529	Identified in Southern Africa in Nov. 2021 and spread globally.Within a month it was dominant in the US.
Previously circulating variants of concern		
Delta	B.1.617.2	Emerged in India in late 2020 and spread globally. Delta carries the L452R spike mutation, among others.
Gamma	P.1	Emerged in Brazil in late 2020.
Beta	B.1.351	Emerged in South Africa in late 2020.
Alpha	B.1.1.7	Emerged in Britain in late 2020.

Source: World Health Organization. (2022). *Tracking SARS-CoV-2 Variants.* Retrieved June 01, 2022, from World Health Organization: https://www.who.int/activities/tracking-SARS-CoV-2-variant

[6] An endemic is a disease that is prevalent in or restricted to a particular location, region, or population.

dominant coronavirus variant worldwide, and perhaps less severe than the original strain of the virus, its rapid transmission has propelled the economic and social costs of the virus.

While the spread of Omicron lowered global growth forecasts in 2021, a gradual lowering of its economic impact is evident in 2022. This is largely because of reduced mobility restrictions globally due to the successfulness of vaccines. Although most countries have lowered restrictions, China continues to hang on to its 'zero-COVID strategy' with major cities going into strict lockdowns to reduce the spread of Omicron. There is considerable debate on this strategy viz. its economic fallout. For example, a full-scale one-month lockdown in China's four largest cities is estimated to decrease China's gross domestic product (GDP) by 8.6%.[7] Continuing with a zero-COVID strategy will swell supply-side constraints facing the world today, thus exacerbating the supply-demand imbalances.

3.2.2 Impact of the Russia-Ukraine Crisis

Amidst the chaos of the COVID-19 pandemic, significant changes have occurred in the global political arena. While the US continues its Indo-Pacific strategy aimed at containing China's global influence, the 'trade war' between China and the US has thawed of late, with Washington and Beijing signalling to resolve economic differences and restore trade ties under the Biden administration. Despite this, global geopolitical tension took on a new course with the Russian invasion of Ukraine. The invasion has become the single most important recent geopolitical global conflict, with its extremely negative economic outcomes threatening global economic recovery. The crisis has contributed to a worsening outlook for the global economy, characterised by a slack in economic activity and a spike in inflation. The combination of price increases in food, fuel and fertiliser, has triggered social tension in many parts of the developing world. Furthermore, this had led to a rise in trade costs and further shrinking global supply chains already battered by the pandemic.

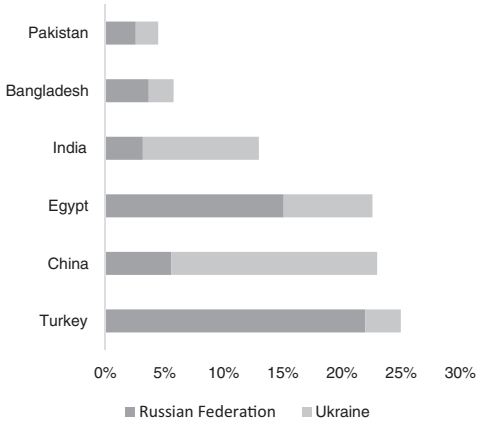
The Russia-Ukraine conflict has contributed to a worsening outlook for the global economy, characterised by a slack in economic activity and a spike in inflation.

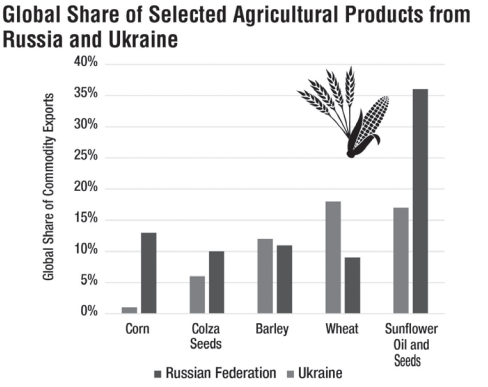
Global food security is impacted greatly by the Russia-Ukraine crisis. As Figure 3.2b shows, Russia and Ukraine hold 53% of the share of global trade in sunflower oil and seeds, and 27% of the share of global trade in wheat. Some major nations are highly reliant on agricultural commodities coming from Russia and Ukraine; the share of imports from Russia and Ukraine as a percentage of total imports of wheat, barley,

[7] Chen, J., Chen, W., Liu, E., Luo, J., & Song, Z. (2022). *The Economic Cost of Locking Down like China: Evidence from City-to-City Truck Flows.* Hong Kong: The Chinese University of Hong Kong.

colza, sunflower oil and seeds is 25.9% for Turkey, 23% for China, 22.6% for Egypt and 13% for India (Figure 3.2). This is more than half of the global population combined. The crisis has contributed to the highest growth in the Food and Agriculture Organization (FAO) Food Price Index, a measure of the monthly change in international prices of a basket of food commodities. In this setting, LICs and groups within are most likely to be the worst affected by food price inflation, with rising prices leading to social unrest in vulnerable countries.

Figure 3.2
Global Dependence on Selected Agricultural Products from Russia and Ukraine





Source: United Nations Conference on Trade and Development, (2022).

Russia's invasion of Ukraine also triggered a sharp rise in oil prices. Geopolitically, Russia is an energy superpower. The country is the world's second-largest producer of crude oil, supplying around 11% of global oil requirements. It is also the major supplier of gas to the European Union (EU), supplying 40% of the input.

Rising Global Oil Prices



Source: The International Monetary Fund, (2022).

Historically, major conflicts in oil-producing regions have led to higher oil prices. Conflicts can create constraints such as logistical bottlenecks, sanctions on trade, and destruction of capital infrastructure on the supply side. Furthermore, the uncertainty created by such crises affects expectations of future prices in commodity markets. Therefore, oil futures undergo significant upward volatility when conflicts arise in oil-producing regions. In March 2022, the US declared banning Russian energy imports and imposed sanctions on Russian exports (which did not include oil). The EU also sanctioned Russian crude and petroleum products in June 2022. This further pushed up the trading prices of oil futures in the global commodity markets with the Brent increasing by around 62% to USD 114 a barrel at the start of June 2022, from a low of USD 71 a barrel in December 2021.

Thus, it is clear that the negative consequences of the Russia-Ukraine crisis will have ripple effects on the world economy. Any expansion in further sanctions on Russia will further worsen global economic prospects.

3.3 Global Economic Prospects

According to the International Monetary Fund (IMF), the global economy grew by 6.1% in 2021, the highest growth rate since 1976, due to the renewed patterns of consumption, investment and savings which have changed dramatically amidst pandemic measures.[8] While merchandise trade rebounded in 2021, the recovery was muted for trade in services. Factors such as pent-up demand, rapid dissemination of vaccinations, and relaxing of pandemic-related restrictions have all aided the global economic recovery. However, a considerable divergence between advanced and emerging economies is seen in the recovery process in addition to significant risk factors that suggest moderation in the global growth outlook in the next two years.

Indeed, global growth is expected to slow down to 3.2% in 2022, largely due to spillovers of the Russian invasion of Ukraine, slow down in China, supply-side constraints, higher than expected inflation and tightened monetary policy. As previously mentioned, Russia is a major global supplier of energy and metals. Along with Ukraine, the two countries also supply a large amount of wheat, corn and barley, staples in the diets of most regions in the world. Rising price pressures have seen the initiation of a cycle of monetary tightening in 2022, with the Federal Reserve increasing its policy rates in March 2022. In June, the US Fed and the Bank of England raised interest rates further by 75 basis points and 25 basis points respectively, while the ECB proclaimed intentions to raise interest rates by 25 basis points in July. The timing of the monetary tightening process is hotly debated in policy circles with some experts arguing that the monetary tightening process should have started earlier. Early views on inflation from central banks suggested a transient phenomenon, which delayed the monetary tightening response. In hindsight, inflation could have been more aggressively contained if early actions were taken.

Global growth is expected to slow down to 3.2% in 2022, largely due to spillovers of the Russian invasion of Ukraine, slow down in China, supply-side constraints, higher than expected inflation and tightened monetary policy.

[8] The International Monetary Fund. (2022). *World Economic Outlook: Gloomy and More Uncertain.* Washington, D.C.: International Monetary Fund.

Table 3.2
World Outlook (% Change)

	Estimates 2021	April 2022 Projections		July 2022 Projections	
		2022	2023	2022	2023
World Output	**6.1**	**3.6**	**3.6**	**3.2**	**2.9**
Advanced Economies	**5.2**	**3.3**	**2.4**	**2.5**	**1.4**
United States	5.7	3.7	2.3	2.3	1.0
Euro Area	5.4	2.8	2.3	2.6	1.2
Germany	2.9	2.1	2.7	1.2	0.8
France	6.8	2.9	1.4	2.3	1.0
Italy	6.6	2.3	1.7	3.0	0.7
Japan	1.7	2.4	2.3	1.7	1.7
United Kingdom	7.4	3.7	1.2	3.2	0.5
Emerging Market and Developing Economies	**6.8**	**3.8**	**4.4**	**3.6**	**3.9**
Russia	4.7	-8.5	-2.3	-6.0	-3.5
China	8.1	4.4	5.1	3.3	4.6
India	8.7	8.2	6.9	7.4	6.1
ASEAN-5	3.4	5.3	5.9	5.3	5.1

Source: The International Monetary Fund. (2022). *World Economic Outlook: Gloomy and More Uncertain.* Washington, D.C.: International Monetary Fund.

In terms of fiscal policy too, global withdrawal of subsidies related to the COVID-19 pandemic is noted. Higher borrowing costs and rising prices will constrict fiscal space in oil and food-dependent economies, especially in the emerging and developing markets.

The expected sharp decline in global trade growth in 2022 is expected to see a rebalance, as the demand for goods moderates and services pick up. Cross-border services trade, especially in tourism, is forecast to see relatively higher growth compared to 2021, but concerns remain over inflated fuel costs and the lingering effects of the pandemic. Fuel prices have almost doubled since December 2021, driving up energy costs by around 60%; China's zero COVID-19 strategy has tightened port activity countrywide, increasing the pressure on the logistics sector. Global food prices have risen, following the invasion. Thus, inflation is expected to be elevated in 2022, with the IMF projecting inflation to be around 8.3%.[9]

3.3.1 Advanced Economies

Advanced economies have fared well over the course of 2021 with a 5.2% growth in global output due to several reasons. Policy support extended by governments to grow aggregate demand with fiscal policy measures such as

[9] The International Monetary Fund. (2022). *World Economic Outlook: Gloomy and More Uncertain.* Washington, D.C.: International Monetary Fund.

insurance schemes and cash transfers enabled many companies and individuals to increase their disposable incomes. Meanwhile, having achieved broad availability of vaccines in 2021, advanced economies continued to vaccinate and provide booster shots, thus decreasing COVID-19-related restrictions. Despite these improvements, labour markets in advanced economies showed continued tightness, with lower labour force participation rates compared to pre-pandemic levels.[10] Accordingly, sharp rises in vacancies and vacancies-to-unemployment ratios have been observed in their labour markets.

Advanced economies are expected to be sluggish in 2022. The geopolitical tensions between Russia and Ukraine along with continued disruptions to global supply chains are driving this slowdown, with inflation being the biggest destabilising force. High inflation has been broad-based, with the United States (US) experiencing an inflation rate of 8.6%, the United Kingdom (UK) at 9% and Germany at 7.9%. Meanwhile, Japan, which has historically recorded very low inflation rates, recorded the highest inflation rate in seven years, with inflation rates reaching around 2.5%.

3.3.2 Emerging and Developing Economies

Following a similar trajectory to advanced economies, emerging and developing economies underwent a significant rebound in economic growth in 2021. In sum, factors such as lower base effects, higher consumer demand in advanced economies, and reduction in pandemic-induced restrictions contributed to economic growth, which exceeded 6.8% (Table 3.2). High growth rates in China (8.1%) and India (8.7%) contributed to this strong recovery. Despite these positives, a clear divergence was observed in vaccination rates, with countries in lower-income groups being out-muscled in the global vaccine markets by richer countries.

Recovery in emerging and developing economies is also expected to be slow-paced in 2022, with the IMF anticipating a growth rate of 3.6% for emerging markets, a stark decline of around three percentage points from 2021. For Russia and Ukraine, the cost of the war is alarming, with Russia expected to contract by 6%, and Ukraine by 40%. Of critical concern is the expected slowdown of the Chinese economy by 4.8 percentage points from 2021 (Table 3.2). China's zero-COVID-19 strategy has led to sweeping lockdowns in major manufacturing and trade hubs such as Shanghai and Shenzen. Real estate investment growth has also stalled due to increased government controls on China's real estate industry, following the near bankruptcy of Chinese real estate giant 'Evergrande'. The slackening of the Chinese economy is likely to have spillover effects on other economies. Meanwhile, India is expected to be the fastest growing major economy with economic growth projected to be around 7.4% in 2022. Yet, several concerns remain over its growth outlook. For example, India is a fuel importing country. Hence, global fuel prices will affect its growth rate. Similarly, higher food prices will also affect the poorer segments of its population.

The turmoil triggered by rising food and energy prices appears to be creating havoc in many emerging and developing economies – set to see inflation of more than 9.5% – with greater social unrest across some economies including

[10] International Monetary Fund. (2022). *Labour Market Tightness in Advanced Economies.* Retrieved May 10, 2022, from IMF Staff Discussion Notes, International Monetary Fund: https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2022/03/30/Labor-Market-Tightness-in-Advanced-Economies-515270

Sri Lanka, Pakistan, Egypt, Tunisia and Peru. Inflation has been rampant in countries such as Sri Lanka and Pakistan, with inflation rates reaching around 59% and 24%, respectively by July 2022. For many, the pandemic has also led to unprecedented growth in sovereign debt. Currently, around 60% of low-income developing countries are either in debt distress or at high risk of debt distress. Rising interest rates will lead to higher debt servicing costs for developing economies. While Sri Lanka has already technically defaulted its debts, countries such as Tunisia, Ethiopia, Pakistan, Ghana and El Salvador are others in immediate danger of going bankrupt.

Overall, developing and emerging markets will struggle to replicate the growth momentum of 2021. External conditions will worsen the balance sheets of vulnerable economies. Lower rates of growth and higher inflation will impact improvement in living conditions. Facilitating further funds for vulnerable nations is likely to be necessary for this problematic global environment.

3.4 Global Trade and Commodity Prices

Global trade is estimated to have grown by 25% in 2021, to a record high of USD 28.5 trillion (Tn).[11] Indeed, it is estimated to have risen by 13% from the pre-pandemic levels signalling a shift in global trade patterns. The many reasons for the rebound in global trade growth in 2021 include the rise in commodity prices, easing of pandemic-related restrictions and strong aggregate demand recovery due to fiscal and monetary stimulus packages in major markets.

However, in 2022, trade will decline due to a multitude of factors. Economic theory suggests a causal relationship between trade growth and economic growth. Aside from monetary and fiscal policy tightening, supply-side constraints continue with rising energy prices, disruption in logistics and increased shipping costs. Rising concerns about debt sustainability too exist in vulnerable markets. This can magnify pressure on international trade flows, negatively affecting foreign direct investment (FDI) flows.

3.4.1 Global Merchandise Trade

Strong demand for goods and services, a resurgence in global supply chains and strong growth rates in advanced economies contributed to merchandise trade growth in 2021. Whilst global exports grew by 9% on average, imports grew by 12% (Figure 3.3a). The increased growth in global merchandise in 2021 reflects the severe disruption to trade in 2020 which led to a low base, the effect of pent-up demand from 2020, a shift in demand from services to goods, and an improvement in the functioning of supply chains (Figure 3.3b). The growth in merchandise trade decelerated in the 3Q 2021 mainly due to a resurgence of lockdowns and restrictions due to the Delta wave. This trend continued in the 4Q 2021, as global imports grew around 7% and global exports grew around 5%.

Regionally, the highest percentage of merchandise growth was observed in Asia, with a 15% rise on average, compared to 2020. China dominated this growth, with exports growing faster in 2021 than any other large economy. Strong demand in the US aided the North American region to

[11] United Nations Conference on Trade and Development. (2022, February 11). *Global Trade Update.* Geneva: United Nations Conference on Trade and Development.

record a 16% increase in imports, the highest on a regional level.

The positive trend for merchandise trade is expected to normalise during 2022 on the back of overall slackening economic growth. Regionalisation of trade is a key concern for 2022, with the Regional Comprehensive Economic Partnership (RCEP) coming into play. This will impact trade between member and non-member countries, with some degree of trade diversion. The RCEP which came into effect in January 2022 is the largest free trade agreement outside the World Trade Organization (WTO), with the member states accounting for 30% of GDP and population. While studies

Figure 3.3a
Global Merchandise Trade Growth

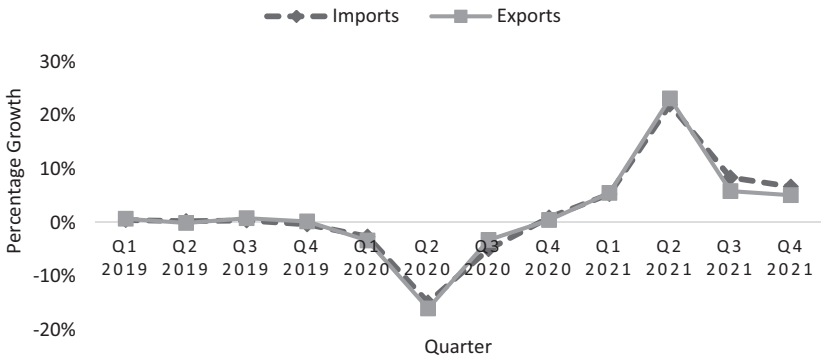
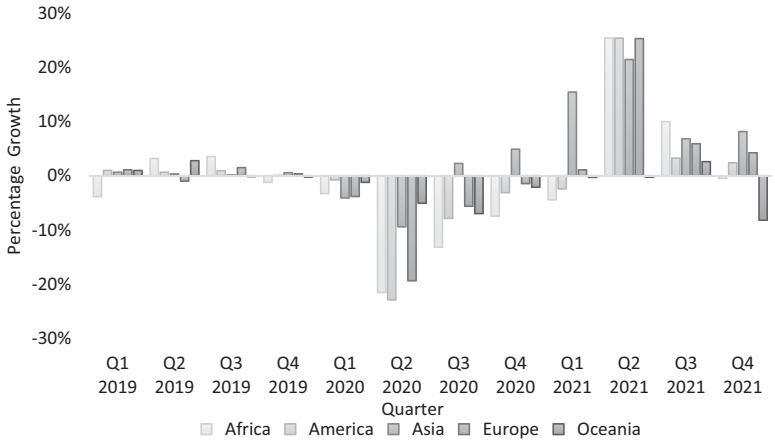


Figure 3.3b
Regional Comparisons on Trade Growth



Source: Compiled with data from United Nations Conference on Trade and Development. (2022). *Global Trade Update.* Geneva: United Nations Conference on Trade and Development.

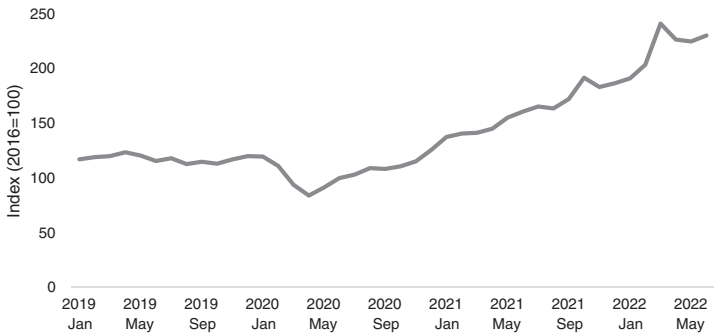
suggest that intraregional exports of the newly formed alliance will grow by 2% or USD 42 Bn,[12] non-member countries could suffer from trade diversion due to the tariff concessions among the RCEP members. In fact, one such country is Sri Lanka which is estimated to lose 3% of exports to RCEP members. Other trade and economic agreements such as the African Continental Free Trade Area and the Indo-Pacific Economic Framework, may also push the agenda further on regionalisation. Global trade patterns may also shift towards environmentally sustainable products and intermediate materials which would ease the transition to a greener global economy.

3.4.2 Global Commodity Market Overview

Geopolitical tensions are reshaping global commodity prices with commodities such as oil, wheat, fertiliser and cooking oil prices ballooning due to the Russia-Ukraine war. The Global Commodity Price Index rose by 49% in 2021. The expansion was largely impacted by the rebound in global energy prices, which rose by approximately 54% in 2021,[13] with the monthly average price of Brent reaching USD 84 per barrel for the first time in seven years. Prices surged for natural gas and coal, signifying the rising demand in the sector. Global metal prices also rose by around 28% due to supply-side disruptions, recovery in global manufacturing and growth in infrastructure investment in advanced economies. Rising volatility in weather patterns, higher aggregate demand and pandemic-related disruptions continued to affect global food prices in 2021, with prices increasing by 28%.[14]

Commodity price movements can affect economies through different channels. Within large commodity exporters, a profound commodity price shock would affect terms of trade, appreciating the domestic currency and providing external stability. Smaller countries having high trade deficits, such as Sri Lanka, will be negatively impacted by high global commodity prices. These include a rise in inflationary pressures, depreciation of the local currency

Figure 3.4a
Global Commodity Price Index



[12] United Nations Conference on Trade and Development. (2021). *A New Centre of Gravity: The Regional Comprehensive Economic Partnership and its Trade Effects.* Geneva: United Nations Conference on Trade and Development.

[13] International Monetary Fund. (2021) *Commodity Prices Index-Monthly.* Washington, D.C.: International Monetary Fund.

[14] United Nations. (2022). *Global Food Prices Rose 'Sharply' during 2021.* Retrieved June 10, 2022, from UN News: https://news.un.org/en/story/2022/01/1109212

Figure 3.4b
Global Crude Oil Prices (Brent Europe)



Source: International Monetary Fund. (2022). *Commodity Prices Index-Monthly.* Washington, D.C.: International Monetary Fund and Federal Reserve Economic Data.

and macroeconomic instability. Therefore, higher global commodity prices, especially in relatively inelastic goods such as crude oil, will create further pains to fiscal constraints in vulnerable economies including Sri Lanka.

Global oil prices have soared following Russia's invasion of Ukraine in February 2022. Crude oil prices shot up with the Brent increasing by around 62% to USD 114 a barrel at the end of March 2022, from a low of USD 71 a barrel in December 2021. The volatility of global energy prices has a significant bearing on global inflation. Russia is the second largest producer of crude oil, supplying around 11% of global oil requirements. In March 2022, the US banned Russian energy imports, and Western countries imposed sanctions on Russian exports which have amplified the uncertainty surrounding global oil supply. As a result, trading prices of oil futures rose in global commodity markets. Both supply and demand-side factors have combined to drive the upward momentum in oil prices (see Figures 3.4a and 3.4b).

Global metal prices also showed higher volatility in 2021 with prices peaking in May and declining gradually in November (Figure 3.5a). Prices have started to resurge in 2022 and may peak again due to supply-side factors. Significant metal producers such as Australia and Canada are likely to benefit in the form of price hikes. Meanwhile, gold prices have declined by 1% in 2022 on a year-on-year (YoY) basis (Figure 3.5b). Gold is known as a hedge against the depreciation of the USD, and the Fed's monetary policy will determine future gold prices. For consumers in countries with significant macroeconomic instability, gold is a good option to hedge inflationary pressures. The recent monetary tightening in the US suggests that gold prices can be expected to decrease over the medium-term future, given a likely appreciation of the USD.

Global fertiliser prices have also risen due to supply chain problems, reduced supplies from Russia and Belarus and an export ban by China in July 2021. As seen in Figure 3.6a, the IMF's Fertiliser Index rose by 19% from December 2021 to May 2022, signalling the impact of the Russia-Ukraine war. Increases in commodity prices such as natural gas have also increased fertiliser prices, as natural gas acts as a raw material in producing nitrogen-based fertiliser.

Figure 3.5a
Global Metal Price Index

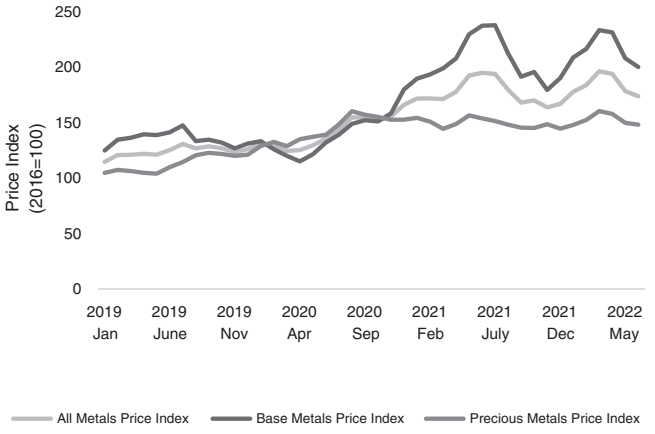
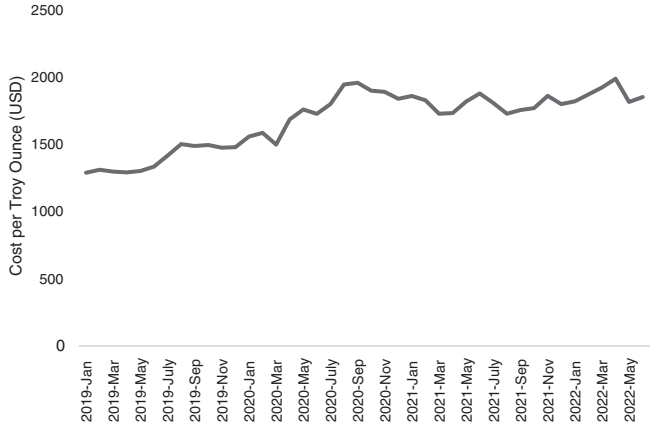


Figure 3.5b
Global Gold Prices



Source: International Monetary Fund. (2022). *Commodity Prices Index-Monthly.* Washington, D.C.: International Monetary Fund and Bullion Vault data.

Further to this, increased food inflation will certainly create further volatility in food importing vulnerable economies.

Food prices have a strong impact on food affordability and income, with consumers and farmers in low and middle-income regions among the most affected. The FAO Food Price Index averaged 147.2 points in 2022, a rise of 17.6% compared to 2021 (Figure 3.6b). Large hikes in prices were recorded in vegetable oil and dairy products. With the outbreak of the Russia-Ukraine war, it is expected that global food prices are set to increase further, with 34% of global wheat exports and 16.6% of global barley exports produced in the region.

Figure 3.6a
Global Fertiliser Index

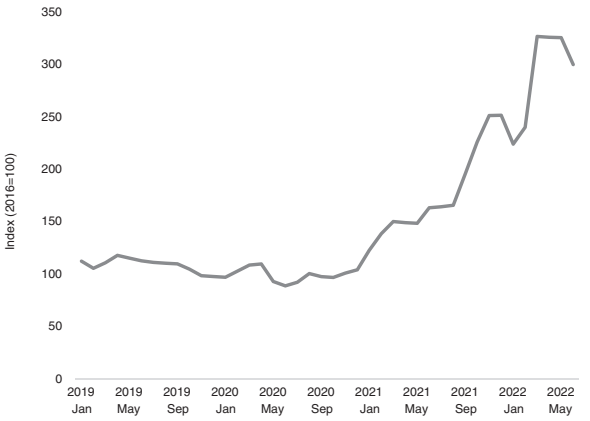
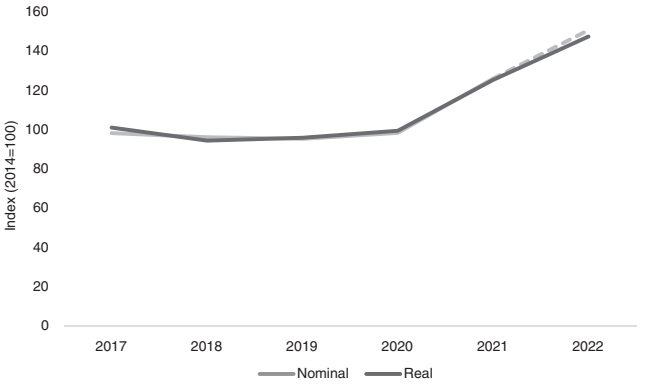


Figure 3.6b
FAO Food Price Index



Source: International Monetary Fund. (2022). *Commodity Prices Index-Monthly.* Washington, D.C. and based on data from Food and Agricultural Organization of the United Nations.

3.4.3 Foreign Direct Investment

Available data indicate a sharp rebound in global FDI flows in 2021, up by 77% to an estimated USD 1.7 Tn.[15] Whilst the pandemic contributed to an overall collapse of global FDI – falling by 42% from 2019 to 2020 – the rebound has been uneven, with inflows to developed economies rising by almost 200%, compared to developing economies which rose by only 30%. North America saw the highest inflows in 2021 with USD 383 Bn, followed by East Asia with a total inflow of USD 358 Bn (Figure 3.7a).

Despite the positive outcomes in the Asian region as a whole, led by a 35% growth in South East Asia and 14% growth in East Asia, South Asia's

[15] United Nations Conference for Trade and Development. (2022). *Investment Trends Monitor January 2022.* Geneva: United Nations Conference for Trade and Development.

Figure 3.7a
FDI Inflows, by Region

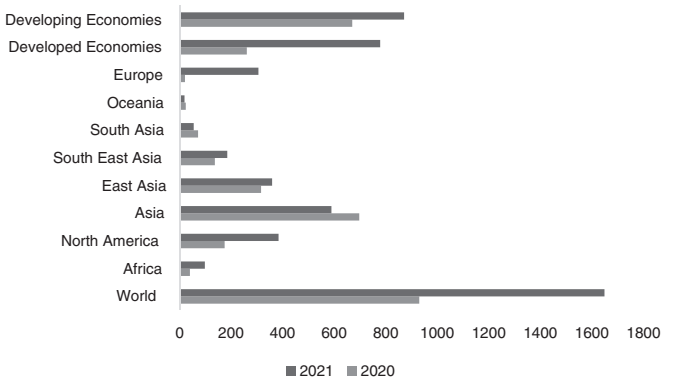
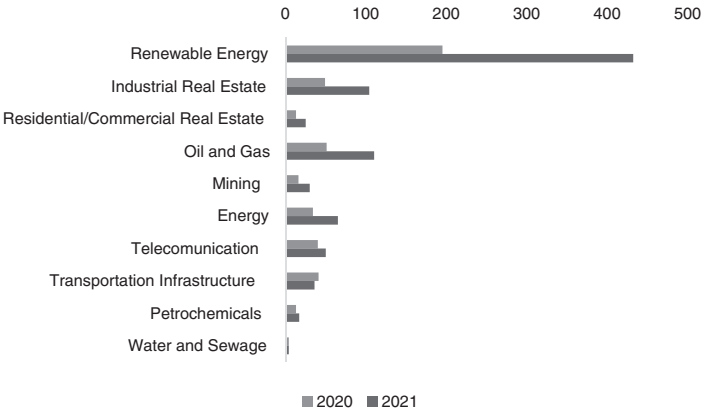


Figure 3.7b
Top 10 Industries for Announced International Project Finance Deals



Source: Compiled with data from United Nations Conference on Trade and Development. (2022). *Global Investment Monitor, No. 40.* Geneva: United Nations Conference on Trade and Development.

FDI inflows declined with a negative 24% growth rate. The persistence of COVID-19 wreaking havoc in the region could be a major reason for this negative growth.

In 2022, global growth in FDI is expected to be moderate due to the global monetary tightening cycle increasing the costs of borrowing for investors. Despite this setback, the trend from 2021 appears to be positive. Based on declared international project financing deals for investments, top industries for international investments include renewable energy, industrial real estate and oil and gas (Figure 3.7b). All these sectors grew by more than 100% in 2021, revealing the growth momentum in these industries. Residential and commercial real estate also grew by 92% which bodes well for future investments in projects such as the Colombo Port City, an integral part of Sri Lanka's next chapter of growth.

3.4.4 Trade in Global Services

Trade in services in 2021 indicated marked improvements, with the trade values reaching pre-pandemic levels in the 4Q 2021. According to the United Nations Conference on Trade and Development (UNCTAD) data, services grew by USD 50 Bn, to reach an output of USD 1.6 Tn, a value greater than the pre-pandemic level output. During the pandemic, consumers substituted consuming goods for services especially due to the rise in COVID-19-related restrictions. However, 2021 has seen a rebound in the consumption of services. Global service growth expanded by 27%, 25% and 20% in 2Q, 3Q and 4Q 2021, respectively, showing the robustness of the rebound.

According to UNCTAD data, all service-related industries grew in the second half of 2021, with an emphasis on the travel and tourism sectors (Figure 3.8a). The global tourism sector grew modestly in 2021, with a 4% expansion according to the WTO. As a result, the industry

Figure 3.8a
Global Trade Growth by Sector

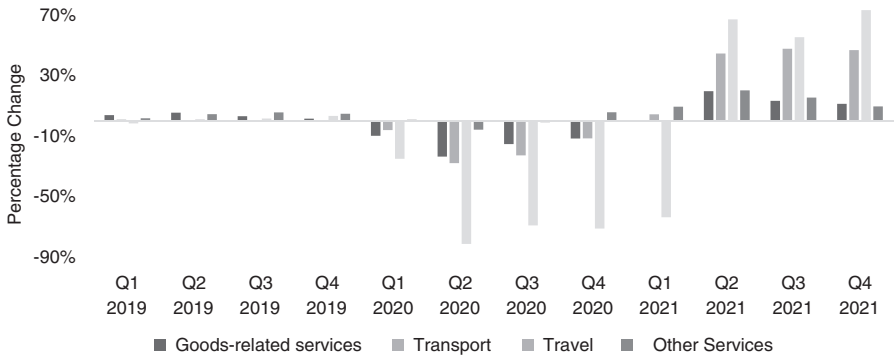
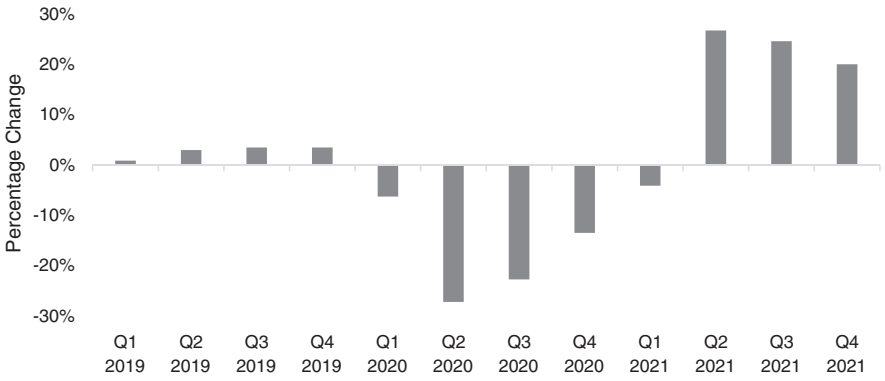


Figure 3.8b
Global Service Growth



Source: Compiled with data from United Nations Conference on Trade and Development. (2022).

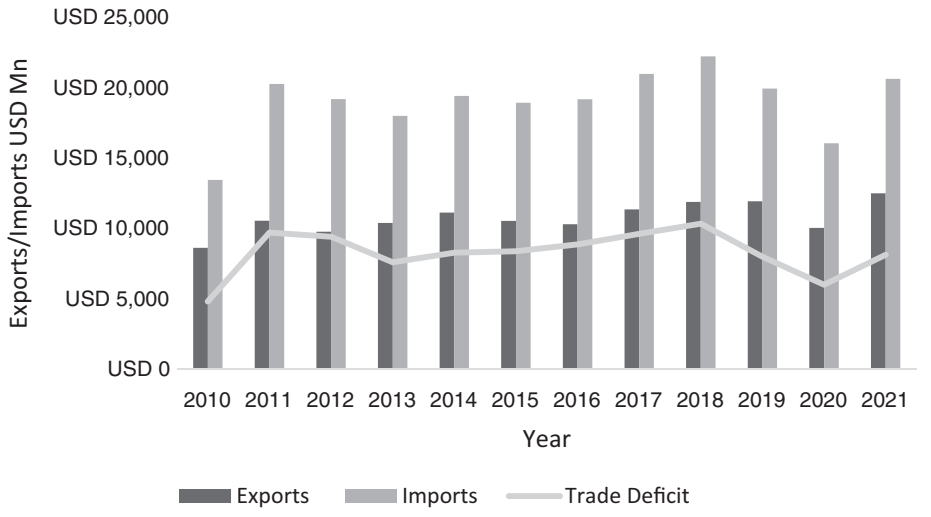
remained 72% below the pre-pandemic levels.[16] Positive signs have emerged in the industry from the second half of 2021 (Figure 3.8b). The industry rebounded by 67% in 2Q 2021 and 65% in 3Q 2021, compared to a YoY estimate. Without discounting the obvious base effects, this scenario indicates that travel has adapted to the impact of COVID-19 particularly in terms of travel restrictions. Domestic travel, in particular, has rebounded globally, but long-haul travel still remains at relatively low levels. Rising vaccination rates along with softer travel restrictions are aiding the ongoing recovery in the sector.

Cross-border travel is expected to grow further in 2022, depending on various factors such as the effect of vaccinations and the emergence of new more potent variants of COVID-19. The WTO forecasts that at best, international travel would grow to around 78% whilst at worst, it would grow to around 30%.

3.5 Implications of External Environment Developments on Sri Lanka

The spillover effects from the Russia-Ukraine war along with continued bottlenecks in supply chains in the global economy will exert their impacts on the Sri Lankan economy. The current macroeconomic developments on the domestic front will amplify these unfavourable external conditions. In particular, the continued depreciation of the Sri Lankan Rupee (LKR) will have a multiplier effect on the high global prices.

Figure 3.9
Export Values, Import Values and Trade Deficits: 2010-2021



Source: Central Bank of Sri Lanka, *External Sector Performance Review (Various).* Colombo: Central Bank of Sri Lanka.

[16] United Nations World Tourism Organization. (2022, January). *UNWTO World Tourism Barometer and Statistical Annex.* Retrieved June 6, 2022, from United Nations World Tourism Organization: https://www.e-unwto.org/doi/abs/10.18111/wtobarometereng.2022.20.1.1?journalCode=wtobarometereng

Sri Lanka is undergoing its worst economic crisis since independence, having announced a selective default on its payments on foreign debt in April 2022. Domestic structural problems such as the persistence of 'twin deficits' – a budget deficit and a current account deficit – have been exacerbated by factors such as the inability to obtain short-term financing from international bond markets, the swell in government expenses after the COVID-19 pandemic, the drop in government revenues after the reduction in tax rates in 2019 and drop in foreign earnings inflows from key sectors like tourism and remittances. To complicate matters, myopic agricultural policies such as the ban on chemical fertiliser have contributed to a massive reduction in food productivity. On top of this, external factors such as the Russia-Ukraine war has caused continued disruptions to global supply chains. As a result of the lack of essentials such as power, fuel, gas, milk powder and medicines, social unrest has been increasing rapidly, severely derailing prospects of a swift economic rebound.

Domestic structural problems have been exacerbated by the inability to obtain short-term financing from international bond markets, swelling government expenditure after the onset of COVID-19, fall in government revenues after 2019 tax cuts and drop in foreign earnings inflows from key sectors like tourism and remittances.

In this climate, Sri Lanka is attempting to create the pre-conditions required for yet another arrangement with the IMF. Contractionary fiscal and monetary policies are being adopted by the Ministry of Finance and the Central Bank of Sri Lanka (CBSL). From the fiscal policy perspective, subsidies are being shelved and capital expenditure projects have been suspended. Revenue measures such as tax increases have been mooted to expand government income. From the monetary policy perspective, interest rates have been increased substantially to control inflation.

3.5.1 Merchandise Trade Overview

Sri Lanka's external sector performance faced significant stresses in 2022, due to a combination of domestic and external factors. The shortage of foreign currency reserves has led to import restrictions. Paradoxically, despite the import controls, the current account deficit has widened. The inflationary external environment has

worsened the economic situation, amplifying import costs of essential items such as fuel, fertiliser and food. Whilst the depreciation of the LKR could have a favourable short-term effect on the volume of exports, the benefits will be wiped out with high domestic inflation.

In 2021, export earnings peaked, growing by 24% to an estimated USD 12.5 Bn.[17] This is a 5% rise from the previous peak reached in 2019, demonstrating that export growth has rebounded from the COVID-19 pandemic and has returned to the sustained higher path in the 2014-2018 period. Furthermore, the expansion of export earnings is being driven by industrial exports (78%). The growth rebound in advanced economies seems to have spillover effects given Sri Lanka's largest export destinations being the US (27%), UK (7%), India (7%) and Germany (5%).[18]

The expected growth momentum may not be sustained in 2022. Total factor productivity is likely to be impacted given the power shortages experienced islandwide. Sri Lanka could be in for a textbook scenario of trade diversion due to worsening socioeconomic conditions. In the worst-case scenario, a process of trade diversion may occur as buyers get dissatisfied with Sri Lankan orders. The textile and garment (T&G) sector, contributing 43% to total exports in 2021 may see its earnings growth of 23%, seeing it close to matching the 2019 export figures,[19] under threat. The Joint Apparel Association Forum (JAAF) reports difficulties in transporting staff to workplaces with power cuts and the lack of diesel to run the generators threatening productivity in the coming months.[20] Any decline in productivity in a highly competitive sector like T&G will be a significant setback for the industry. Despite these obstacles, the Sri Lankan apparel industry has managed to maintain its growth dynamism, with the latest export data indicating an increase of export earnings of around 20% from January to July 2022 on a YoY basis.[21] This is commendable, and shows the robustness of the industry to external economic shocks. The industry has shown the path Sri Lanka can take towards export led industrialisation, capitalizing on the country's comparative advantage.

Sri Lanka's second highest export revenue contributor, the tea sector, accounting for around 11% of total merchandise exports, saw earnings increase by 7% in 2021 based on higher growth in key Middle Eastern markets.[22] Iraq emerged as the largest importer of Ceylon tea surpassing Turkey. Despite localised lockdowns, total tea production grew marginally by 7%.

In 2022, the precarious geopolitical environment could have a sizable effect on tea exports to Russia, a key market (Figure 3.10b). While global demand has rebounded for the export crop, issues such as the higher price of fertiliser in the global markets, and shortage of fertiliser and electricity will impact the productivity of the

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17 Central Bank of Sri Lanka. (2022, May 05). *External Sector Statistical Tables.* Retrieved May 20, 2022, from Central Bank of Sri Lanka: https://www.cbsl.gov.lk/en/statistics/statistical-tables/external-sector

18 Central Bank of Sri Lanka. (2021). *Annual Report 2021.* Colombo: Central Bank of Sri Lanka.

19 Central Bank of Sri Lanka. (2022, May 05). *External Sector Statistical Tables.* Retrieved May 20, 2022, from Central Bank of Sri Lanka: https://www.cbsl.gov.lk/en/statistics/statistical-tables/external-sector

20 Economynext. (2022, April 01). *Sri Lanka Diesel Shortage Hits Power, Worker Transport: Apparel Exporters.* Retrieved June 2022, from Economynext: https://economynext.com/sri-lanka-diesel-shortage-hits-power-worker-transport-apparel-exporters-92336/

21 Central Bank of Sri Lanka. (2022, Sep 06). *External Sector Statistical Tables.* Retrieved Sep 20, 2022, from Central Bank of Sri Lanka: https://www.cbsl.gov.lk/en/statistics/statistical-tables/external-sector

22 Central Bank of Sri Lanka. (2022, May 05). *External Sector Statistical Tables.* Retrieved May 20, 2022, from Central Bank of Sri Lanka: https://www.cbsl.gov.lk/en/statistics/statistical-tables/external-sector

Figure 3.10a
Tea Exports and Auction Prices (2016-2021)

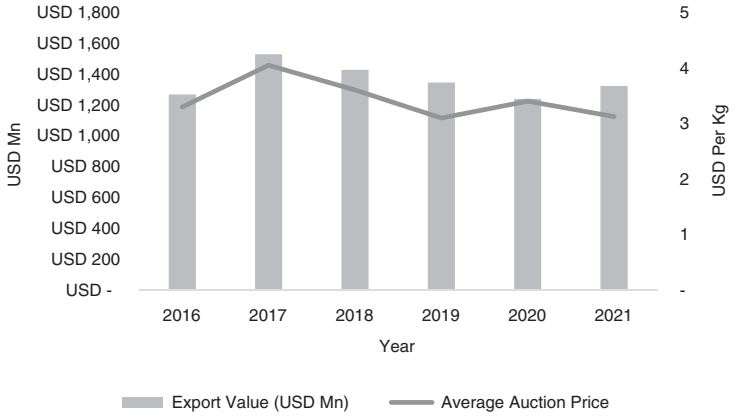
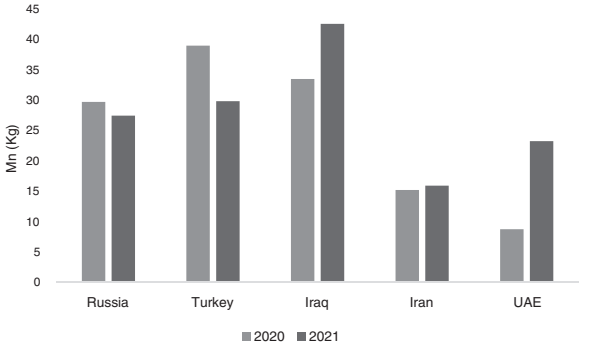


Figure 3.10b
Major Buyers of Sri Lankan Tea Exports



Source: Compiled with data from Central Bank of Sri Lanka (2021). *Annual Report 2021.* Colombo: Central Bank of Sri Lanka and data from Tea Exporters Association of Sri Lanka.

industry. Power cuts may impact the quality of black tea leaves (known as the famed Ceylon black tea) by disrupting the production process. Recent data showed that tea exports plunged by 11.2% in the January-June period 2022 compared to 2021 on a YoY basis.[23]

In 2021, import growth was moderately higher than export growth, increasing by 29%. Several reasons can be attributed to this rapid rise. Firstly, the global spillover effects of recovery from the COVID-19 pandemic saw growth in aggregate demand in the external environment. Intermediate imports rose by a whopping 36%. The cost of fuel imports, which constitute around 18% of total imports, surged by 47%, despite the volume risingby only 13%. The consumer goods segment saw a 13% growth compared to the

[23] Central Bank of Sri Lanka. (2022, July 30). *External Sector Statistical Tables.* Retrieved Aug 01, 2022, from Central Bank of Sri Lanka: https://www.cbsl.gov.lk/en/statistics/statistical-tables/external-sector

previous year,[24] despite the import restrictions on imports of several products such as vehicles. While volumes of rice imports grew by a sizeable 800%, imports of other food products such as sugar and wheat declined by 15% and 7%, respectively. In 2022, imports are expected to further decline given the precarious and dwindling state of foreign exchange reserves. Meanwhile, the drop in intermediate imports, which is around 40% of import expenditure excluding oil, will affect export growth. This includes the T&G sector, which contributes around 43% to the country's total exports and around 15% of total imports. The trade deficit is likely to widen if the exports are affected due to the reduction of intermediate imports.

Connecting to global production networks through a trade policy framework that promotes multilateral trade should be encouraged, despite the time-consuming nature of the process.

In the medium run, the government should consider prioritising exports over following an import substitution model. The import substitution model has led to certain protected industries lowering public welfare while monopolising profits. Calls for diversifying into alternative markets and products also need a fresh rethink, given the reshaping of global supply chains. Trade should be a cornerstone of government policy, to improve the prolonged issues with a current account deficit. Connecting to global production networks through a trade policy framework that promotes multilateral trade should be encouraged, despite the time-consuming nature of the process. New measures should be taken to join regional agreements such as RCEP over bilateral deals based on geopolitical needs. Retaining and improving international competitiveness should be a key policy goal in 2022.

3.5.2 Tourism and Remittances

The global tourism industry was decimated by the COVID-19 pandemic. Mobility restrictions such as border closures and quarantine requirements, resulted in a significant drop in tourist arrivals globally, with arrivals down by 72% compared to the pre-pandemic levels. Continuing the trend, the receipts from tourist arrivals also saw an 82% decline in 2020, relative to 2019, on a global scale.

The combination of high rates of vaccination and easing of travel restrictions will help release some pent-up demand in 2022. The United Nations World Tourism Organization (UNWTO) indicates a 70% growth potential for international

[24] Central Bank of Sri Lanka. (2022, May 05). *External Sector Statistical Tables.* Retrieved May 10, 2022, from Central Bank of Sri Lanka: https://www.cbsl.gov.lk/en/statistics/statistical-tables/external-sector

arrivals, using a best-case scenario.[25] Although this estimate is still around 50 percentage points below the pre-pandemic levels, it will be welcome news to tourism-dependent economies in the emerging and developing markets.

Sri Lanka's tourism sector has suffered since 2019, and among the string of events, firstly, the Easter terror attacks and then the pandemic outbreak. At its peak in 2018, the industry contributed approximately 4.9% towards GDP.[26] The latest employment data show that around 260,000 people were directly/indirectly employed in the industry, accounting for around 3% of the labour force in 2020. Tourist arrivals declined sharply by 90% from 2019 to 2021, from 1.9 Mn arrivals to 194,494, following the closure of international borders to contain the spread of the pandemic.

A resurgence of tourist arrivals was observed with almost 300,000 tourists arriving in Sri Lanka by

Figure 3.11a
Tourist Arrivals and Receipts (2016-2021)

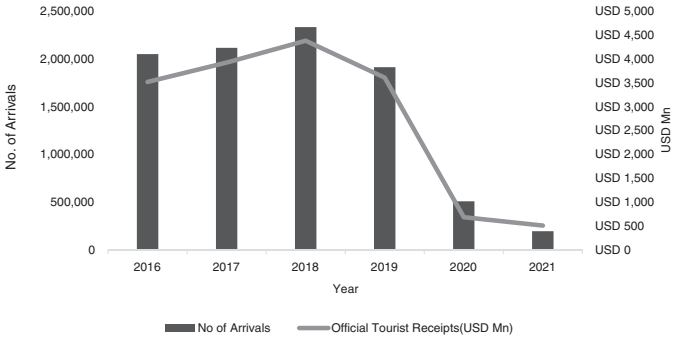
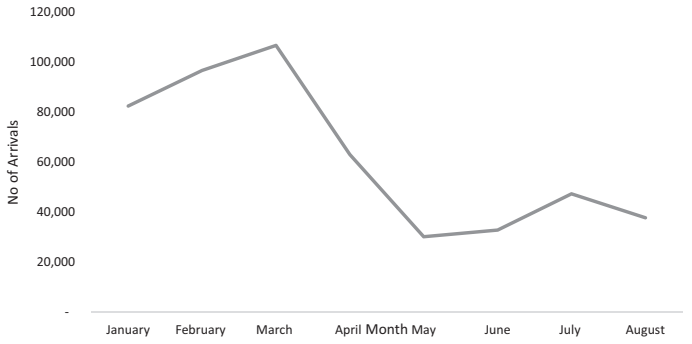


Figure 3.11b
Monthly Arrivals (Jan 2022 – June 2022)



Source: Compiled with data from Monthly Tourist Arrivals, Sri Lanka Tourism Development Authority and Central Bank of Sri Lanka. (2021). *Annual Report 2021. Colombo:* Central Bank of Sri Lanka.

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[25] United Nations World Tourism Organization. (2022, March 25). *Tourism Enjoys Strong Start to 2022 While Facing New Uncertainties.* Retrieved May 10, 2022, from United Nations World Tourism Organization: https://www.unwto.org/taxonomy/term/347#:~:text=Outlook%20for%202021&text=Based%20on%20current%20trends%2C%20UNWTO,compared%20to%20pre%2Dpandemic%20levels

[26] Central Bank of Sri Lanka. *(2019). Annual Report 2019.* Colombo: Central Bank of Sri Lanka.

March 2022. Several factors contributed to this rebound. Sri Lanka was one of the first countries in Asia to open borders for tourism. This boosted confidence within the global travel community that Sri Lanka is open for travel again and perceived as a COVID-19 safe destination albeit with restrictions. Vaccination rates in the country have been high, and despite an Omicron-induced wave, reported deaths due to COVID-19 had not seen a notable rise. The early recovery, however, was once again disrupted by the Russia-Ukraine war and more concerningly by the growing public and political unrest in the country due to the ongoing economic crisis. Monthly tourist arrivals have dropped since peaking in March 2022, and this declining trend will likely continue for a few more months until socio-political stability is restored and the problem of essential items' shortage abated.

Figure 3.12a
Yearly Remittance Flows (2017-2021)

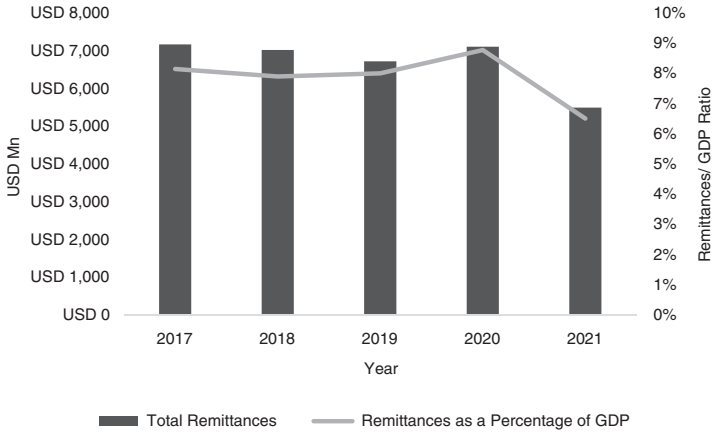
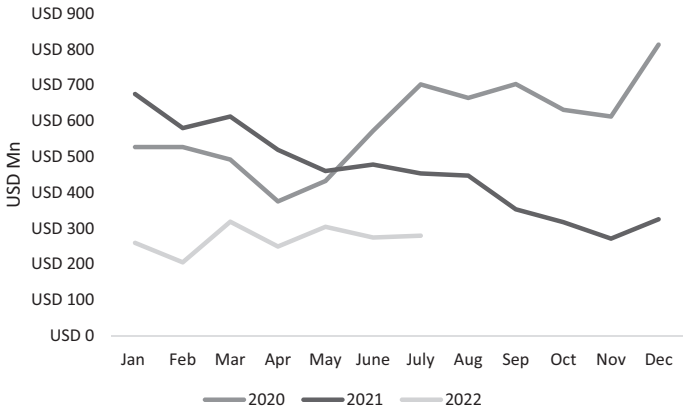
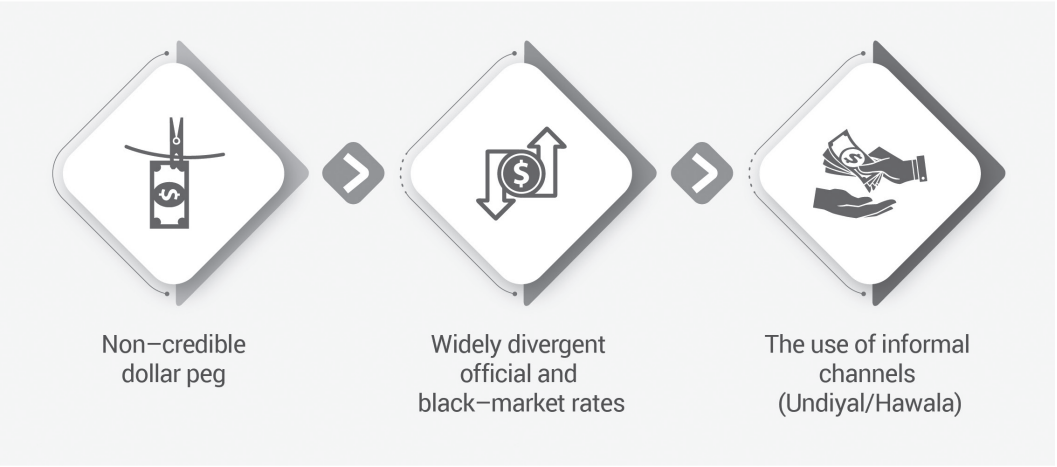


Figure 3.12b
Monthly Remittance Flows (Jan 2020-June 2022)



Source: Central Bank of Sri Lanka. (2021). *Annual Report 2021.* Colombo: Central Bank of Sri Lanka; Central Bank of Sri Lanka. *Monthly External Sector Performance.* Colombo: Central Bank of Sri Lanka.

Declining Remittances



The continued recovery of the tourist industry is contingent on the country's socioeconomic stability. Power cuts, fuel queues and social unrest have shrunk earnings in this vital sector, which could intensify the current financial crisis. As a result, some Western countries issued adverse travel advisories, threatening the sector's revival. However, social unrest has thawed since a new President was sworn in. The travel advisories have also been relaxed due to the improvement in the political climate. This should act as a silver lining to the industry, which is struggling with practical issues such as the crisis-imposed shortages of imported food and beverages.

Next to exports, worker's remittances are the largest source of foreign exchange inflow into Sri Lanka's balance of payments (BOP). While a marginal decline in remittances is noted since 2016, healthy remittance flows were recorded even during the peak of the pandemic in 2020. However, a substantial drop of 23% in 2021 to USD 5.5 Bn added a significant burden to an already weak BOP position. Furthermore, the trend appears to be worsening in 2022, with the latest data indicating that remittances have fallen sharply by 52% in the first half of 2022 compared to a year earlier.[27] As Sri Lankan expatriates continue to choose unofficial channels to remit their earnings to Sri Lanka, the outlook for remittances in 2022 looks worse. This is alarming, as remittances cover almost 80% of Sri Lanka's trade deficit, historically.

Remittances have been falling due to a non-credible USD peg and widely divergent official and black-market rates which led to an explosion in demand for black market exchanges. The use of traditional black market cross-border settlement systems such as Undiyal/Hawala has risen as a result (see infographic). Experiments such as financial incentive schemes on inward workers' remittances, offering extra LKR to encourage formal remittance channels, seem to have failed in curbing the demand for black-market channels. Despite the float of the LKR in March 2022, and depreciation of nearly 80% since, the migrant workers are yet to regain confidence in remitting through formal channels.

[27] Central Bank of Sri Lanka. (2022, July 30). *External Sector Statistical Tables.* Retrieved Aug 01, 2022, from Central Bank of Sri Lanka: https://www.cbsl.gov.lk/en/statistics/statistical-tables/external-sector

3.5.3 Foreign Direct Investments and Capital Market Trends

Investors have been sensitive to issues such as political stability, institutional corruption and the lack of ease of doing business.

Despite the global improvement in FDI inflows to developing markets, Sri Lanka has struggled to attract substantive inflows. Generally, the country has struggled in this regard compared to competing regional peers such as Thailand, Vietnam, Indonesia, Malaysia and Bangladesh. Investors have been sensitive to issues such as political stability, institutional corruption and the lack of ease of doing business. The weak FDI inflows have shown an unfavourable pattern throughout the past decades, with inflows on average amounting to around USD 900 Mn, about 1-2% of GDP (Figure 3.13a). Following the global trend, FDI inflows grew by 38% in 2021 with inflows of USD 598 Mn. Overall, the majority of the FDI inflows are linked to infrastructure, largely towards property development and telecommunication networks. In the manufacturing sector, higher FDI was seen in industries such as textile manufacturing and chemical and rubber production. In the service

Figure 3.13a
FDI Inflows and FDI to GDP Ratio (2017-2021)

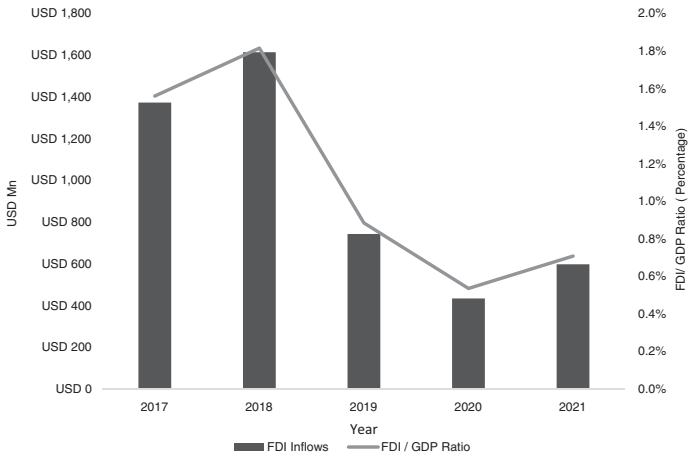
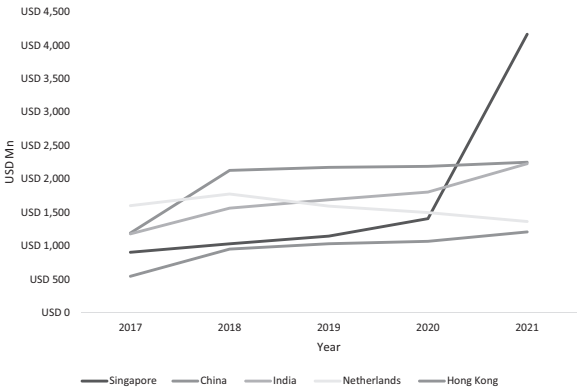


Figure 3.13b
Major FDI Country Sources (2017-2020)



Source: Central Bank of Sri Lanka. (2021). *Annual Report 2021.* Colombo: Central Bank of Sri Lanka.

sector, a majority of FDI flows were observed in the hotels and restaurant segment, followed by IT and business process outsourcing (BPO) services. In the medium-term, Sri Lanka can anticipate larger FDI, particularly to the Colombo Port City, Hambantota Port Project and the renewable energy sector. Greater economic and political stability will carry much weight in this regard.

While India, the Netherlands, the UK, Hong Kong and China were the top five sources of FDI inflows in 2021, Singapore had the highest stock position in FDIs, followed by China (Figure 3.13b). Inflows from China have declined considerably over the past five years, peaking following the Hambantota Port investment and declining significantly afterwards. It is interesting to note that the waning Chinese investments have been countered by the growing increase in inflows from India, which has rapidly grown by 84% from 2020 to 2021, showcasing the geopolitical inroads India has been making in Sri Lanka at the expense, perhaps of China. Recently, India signed a few deals over short-term financing which included renewable energy FDI projects in the Northern Province of Sri Lanka. This could provide direction to increased FDI inflows from India in 2022.

3.6 Conclusion

Global growth expectations have been sharply adjusted downwards by the IMF following the war between Russia and Ukraine. Global economic growth is expected to slump from 6.1% in 2021 to 3.6% in 2022, as the war disrupts economic activity and spikes inflationary pressures. The global supply chain disruptions are set to continue due to the war and China's zero COVID-19 policy. While global trade is set to improve, rising fuel prices will increase the price of consumer and merchandise goods. Global inflationary pressure has forced countries to adapt monetary tightening policies, further dampening growth expectations. Emerging and developing economies will be hit hard by this, with worsening capital flight expected. On a positive note, cross-border service trade, especially tourism will recover in 2022. The continuation of the COVID-19 vaccinations will make the world safe to travel once again.

Sri Lanka will feel the pain of the global external environment, as higher fuel, food and commodity prices continue to increase inflationary pressure in the economy. Such price increases will lead to a greater scarcity of essential goods due to the acute lack of foreign exchange in the country.

Further, Sri Lanka is likely to have a significant downgrade on growth expectations, following the expected drop in productivity due to the lack of essential imports and other disruptions. Outbound and inbound trade activities will suffer too. The quick implementation of an IMF programme which includes a debt restructuring component is imperative given the precarious economic situation Sri Lanka faces in the short-term. In the medium to long-term, the crisis offers the country an opportunity to rebalance and rediscover its appetite for export-oriented development. This opportunity should not be missed. A development policy which focuses on export-led growth and greater diversification of external income sources is essential for Sri Lanka to establish a long-term sustainable growth path.

FROM CRISIS TO RECOVERY: DRIVING POLICY ACTION THROUGH SDGS

4. Crises and Recovery: Meeting the 2030 Agenda on SDGs

4.1 Introduction

At the United Nations Sustainable Development Summit held in 2015, 193 member states of the United Nations (UN), including Sri Lanka, pledged commitment to the 2030 Agenda for Sustainable Development. The Sustainable Development Goals (SDGs) that are part of the 2030 Agenda, comprise 17 goals and 169 targets aimed at ending poverty and hunger, improving access to education and health, building strong institutions and partnerships, and acting on climate change. It is a complex development framework that needs to be implemented as a whole, considering the interlinkages among the three dimensions of sustainability – economic, social and the environment. The SDGs also emphasise the principle of leaving no one behind, highlighting the need to ensure an inclusive approach. During the first five years from the adoption of SDGs, countries around the world made some progress, with progress varying across countries and regions, as well as the 17 goals. Yet, the challenge of achieving the SDGs has been magnified in recent years by the coronavirus (COVID-19) pandemic, which is affecting the progress of several goals across countries globally.

Sri Lanka too has taken many initiatives since 2015 to facilitate the implementation of SDGs, and some progress was made prior to the pandemic. However, the pandemic has adversely affected several SDGs, particularly those goals related to poverty, inequality, employment, and health. Aggravating the conditions that prevailed in the country, Sri Lanka's worst ever economic crisis since independence that began to unfold in 2022 will have notable adverse effects on the achievement of SDGs and the 2030 Agenda.

Sri Lanka's economic crisis will have notable adverse effects on achieving SDGs and the 2030 Agenda.

In this context, this chapter provides a comprehensive analysis of the progress related to SDGs and the effect of the COVID-19 pandemic and current economic downturn with a special reference to the social and economic dimensions of sustainable development. The chapter presents a detailed analysis of SDG progress at the global level, emphasising the implications of the COVID-19 pandemic. It then discusses the status of SDGs in Sri Lanka,

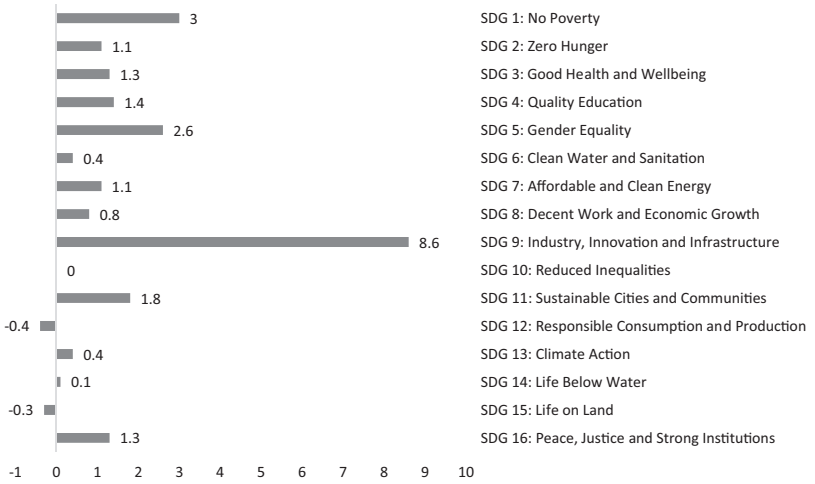
highlighting the progress made thus far and the implications of the pandemic and the economic crisis, with a special focus on SDGs related to poverty, inequality, food security, decent work, health and education. Some concluding remarks highlighting key measures to accelerate the progress of SDGs to ensure their achievement by 2030 are also provided.

4.2 Global Perspectives on the Progress of SDGs[1]

The Sustainable Development Report 2022 attempts to provide a comprehensive analysis of the progress of SDGs, by introducing a Sustainable Development Goals Index (SDG Index) which benchmarks country performances.[2] Since its adoption in 2015, the overall progress of the SDG Index has increased over time. However, progress is seen to have stalled since 2020, which can be attributed to the effects of the COVID-19 pandemic. The pandemic has significantly reversed the previous gains made on most of the SDGs, including those related to poverty, health and education, while temporarily improving a few indicators particularly related to the environment.

As shown in Figure 4.1, global progress since 2015 varies significantly across the 17 goals. Especially, SDG 9 (industry, innovation, and infrastructure) has had the most progress since 2015, increasing by 8.6 percentage points, followed by SDG 1 (no poverty), which has increased by 3 percentage points. Many SDGs including those related to health, education, gender equality, sustainable cities, peace, etc., too have shown some positive progress. However, SDG 15 (life on land) and SDG 12 (responsible consumption patterns)

Figure 4.1
Global Progress in SDGs since 2015 (Percentage Points)



Source: Sachs, J., Kroll, C., Lafortune, G., Fuller, G., & Woelm, F. (2021). *Sustainable Development Report 2021: The Decade of Action for the Sustainable Development Goals.* Cambridge: Cambridge University Press.

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[1] This section relies heavily on United Nations. (2021). *The Sustainable Development Goals Report 2021.* New York: United Nations.

[2] Sachs, J., Lafortune, G., Kroll, C., Fuller, G., & Woelm, F. (2022). *Sustainable Development Report 2022: From Crisis to Sustainable Development- the SDGs as Roadmap to 2030 and Beyond.* Cambridge: Cambridge University Press.

have regressed, while SDG 10 on inequality and SDG 17 on partnerships have not shown any progress since 2015.

Even before the COVID-19 outbreak, progress on SDGs had been uneven, and more focused attention was needed in most areas. The pandemic abruptly disrupted the implementation of many of the SDGs and, in some cases, relapsed decades of progress. According to the report of the Secretary General of the United Nations, the SDGs have been "thrown even further off track" due to the ill effects of the pandemic.[3] The report argues that SDGs are not being achieved due to the financing constraints faced in developing countries. The constraints have been aggravated further by the global economic fallout of the Russia-Ukraine war.

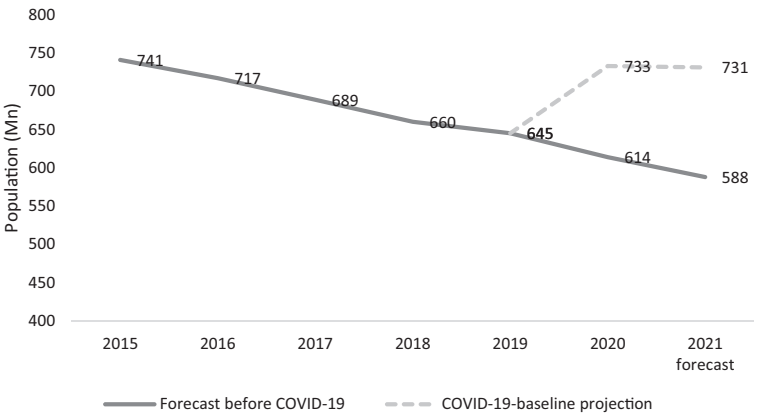
Due to these reasons, there is a discourse on how SDG 2030 targets could be achieved in the medium term. One of the discussion points is about setting priorities. The debate centres on whether the SDG agenda should aim mostly for the 'low-hanging fruit', the easiest goals to achieve or instead, target the SDGs that are the most difficult. Some argue that since underperformance has the potential to render goals irrelevant, goals should be prioritised strategically to address key goals that struggle to be met in current development pathways. Since SDGs are integrated, prioritisation should happen while countries recognise synergies and trade-offs in prioritising an individual goal.[4]

The rest of this section discusses the progress of SDGs made thus far, focusing more on the SDGs that are related to the social and economic dimensions while considering the effects of the pandemic.

SDG 1: No Poverty

Some progress has been made in poverty reduction since 2015. The share of the global population living below the extreme poverty line of United States Dollars (USD) 1.90 per day

Figure 4.2
Global Extreme Poverty Forecasts Pre and Post COVID-19



Source: United Nations. (2021). *The Sustainable Development Goals Report 2021.* New York: United Nations.

[3] United Nations. (2021). *Our Common Agenda – Report of the Secretary-General.* New York: United Nations.

[4] Stockholm Environment Institute. (2020, October). *Let's Get the SDGs Back on Track.* Retrieved June 30, 2022, from SEI Perspectives: https://www.sei.org/perspectives/lets-get-the-sdgs-back-on-track/

has fallen from 10.1% in 2015 to 9.3% in 2017. While external factors such as conflict, climate change, natural disasters and infectious diseases often play a large role in raising global poverty, the outbreak of the pandemic has become the biggest obstacle in poverty reduction this decade, threatening to reverse the hard-earned gains. The decline in economic growth due to the pandemic led to sweeping job and income losses, amplifying the plight of the vulnerable. According to available estimates, approximately 120 million (Mn) people fell into extreme poverty in 2020 due to the pandemic (Figure 4.2). This has led to a surge in the global extreme poverty rate from 8.4% in 2019 to 9.5% in 2020, reversing the progress made since 2016. The pandemic is likely to have a long-term effect on global poverty levels, with the global poverty rate projected to be around 7% (around 600 Mn people) in 2030, missing the SDG target of eradicating poverty by 2030.

The COVID-19 pandemic also has re-emphasised the importance of strengthening social protection systems and achieving substantial coverage of the poor and the vulnerable – which is an important target under Goal 1 (Target 1.3). In response to COVID 19, many countries worldwide adopted various social protection measures. Despite these measures, only 46.9% of the global population has been covered by at least one social protection scheme in 2020, leaving around 4 billion (Bn) people globally without any social protection benefits. Considerable disparities remain in social protection coverage across countries with different income levels. For instance, prior to the pandemic, over 85% of the population in high-income countries (HICs) was covered by at least one social protection benefit, compared to just 13.4% in low-income countries (LICs).

SDG 2: Zero Hunger

SDG 2 aims to "end hunger, achieve food security and improved nutrition and promote sustainable agriculture", by ensuring access to safe, nutritious, and sufficient food to all people while eliminating malnutrition. The goal also seeks to reduce stunting and wasting in children under 5 years by 2025.

Global Social Protection Coverage, 2020



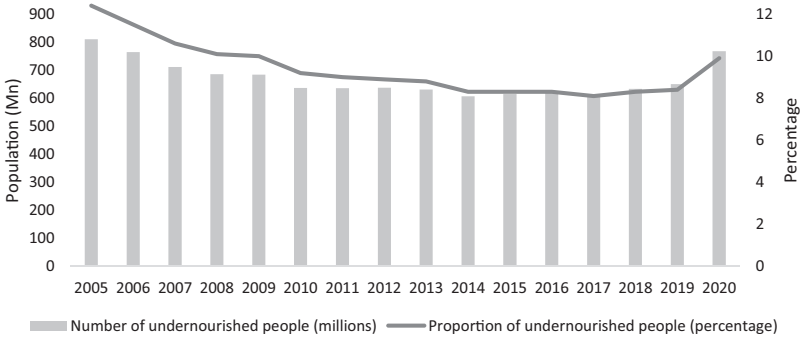
Only **46.9%** of the global population was covered by at least one social protection scheme.



Around **4 billion** people were without any social protection benefits.

Sources: United Nations, (2021) and The Sustainable Development Goals Report 2021, (2021).

Figure 4.3
No. of Global Undernourished Population and the Percentage of Undernourishment (2005-2020)



Source: United Nations. (2021). *The Sustainable Development Goals Report 2021.* New York: United Nations.

As shown in Figure 4.3, remarkable progress in undernourishment has been made globally during the 2005-2015 period. The number of unnourished people declined from 810 Mn to 615 Mn while the percentage of people undernourished declined from 12.4% to 8.3%. Since 2015 however, global undernourishment rates have surged, with the global population of the undernourished growing by around 150 Mn between 2015 and 2020. Weakness in macroeconomic conditions, mounting debt levels, high dependence on commodity exports and climate change have all contributed to this. The pandemic posed further threats to global food security and nutrition. Undernourishment rates surged from 8.4% in 2019 to 9.9% in 2020, showing a marked growth in the number of undernourished people by around 118 Mn people during this period (Figure 4.3).

The COVID-19 outbreak resulted in a spike in the rates of food undernourishment, due to loss of income, rising food prices and lack of agricultural productivity. The rising frequency and prolonged school closures have affected child hunger, with research suggesting a 30% reduction in the coverage of essential nutrition services (e.g. school meal programmes) in low and middle-income countries (MICs) and up to 100% where lockdown has been imposed.[5] Overall, diet quality has also impaired, concurrent with declines in purchasing power as many individuals and families shift towards purchasing less expensive or non-perishable food items with lower nutritional quality.

SDG 3: Good Health and Well-being

SDG 3 aims to "ensure healthy lives and promote well-being for all ages". The goal includes reducing the global maternal mortality ratio to less than 70 per 100,000 births, reduction of neonatal mortality to or below 12 per 1,000 live births, and under-5 mortality to or below 25 per 1,000. The goal also targets other measures of development in health including ensuring the end of epidemics such as tuberculosis and AIDS in 2030, reducing pre-mature mortality from non-communicable diseases (NCDs), strengthening the prevention and treatment of substance abuse, etc.

[5] Borkowski, A., Ortiz-Correa, J. S., Bundy, D. A. P., Burbano, C., Hayashi, C., Lloyd-Evans, E., Neitzel, J., & Reuge, N., (2021). *COVID-19: Missing More Than a Classroom. The Impact of School Closures on Children's Nutrition.* Innocenti Working Paper 2021-01. Florence: UNICEF Office of Research – Innocenti.

Significant strides were made in increasing life expectancy at birth and reducing some of the common killers associated with child and maternal mortality. For example, between 2000 to 2019, the global under-5 mortality rate halved, falling from 76 to 38 deaths per 1,000 live births. The global neonatal mortality rate decreased considerably from 30 to 17 deaths per 1,000 live births.

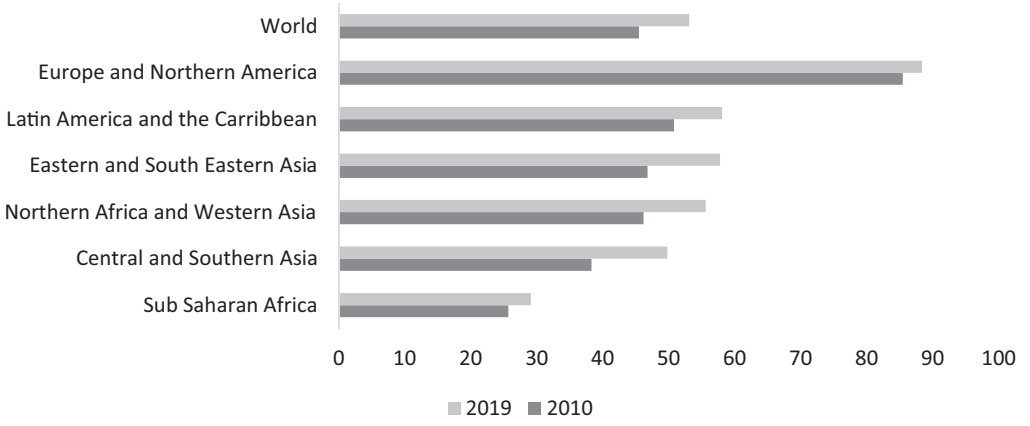
The pandemic has had a lasting negative impact on these previous gains in health, causing high disruptions in the provision of basic essential services, overwhelming many public health systems, affecting access of other patients with acute or chronic ailments in seeking medical treatment and increasing mortality rates across the world. However, the improvement in COVID-19 vaccine coverage stemmed the rising pandemic-related mortality. By mid-2022, global vaccination rates had accelerated, with over 65% of the world's population receiving at least one vaccine dose. Similarly, the global intake for a single dose of the COVID-19 vaccine grew from 5% in April 2021 to 65% in June 2022. These strides along with a global emphasis on vaccine equality will be paramount to helping the world return to normalcy in 2022.[6]

SDG 4: Quality Education

Some progress was made on SDG targets relating to education. The completion rate for primary education and secondary education reached levels of around 85% from 82%, and 53% from 46%, respectively, between 2010 and 2019. However, crucial issues persist. A significant disparity remains in secondary school completion rates between rich and poor countries, with 88% completing secondary school in Europe compared to 29% in Sub-Saharan Africa (Figure 4.4).

The pandemic resulted in the temporary closure of schools which impacted many students

Figure 4.4
Secondary School Completion Rates (2010-2019)



Source: United Nations. (2021). *The Sustainable Development Goals Report 2021.* New York: United Nations.

[6] Hannah Ritchie, Edouard Mathieu, Lucas Rodés-Guirao, Cameron Appel, Charlie Giattino, Esteban Ortiz-Ospina, Joe Hasell, Bobbie Macdonald, Diana Beltekian, & Max Roser (2020).*Coronavirus Pandemic (COVID-19).* Retrieved May 10, 2022, from OurWorldInData.org: https://ourworldindata.org/coronavirus

globally. According to the UN Sustainable Development Goals Report of 2021, around 65% of governments in LICs and lower-middle-income countries (LMICs) and 35% of upper-middle countries (UMICs) and HICs have reduced funding for education. The shift to online learning has exacerbated global learning inequalities. Students, especially in developing countries, have struggled due to the lack of internet connections, the lack of smartphones or laptops and the lack of electricity. Due to these reasons, approximately 101 Mn children have fallen behind the minimum reading proficiency threshold.

Improving and developing modern school infrastructure will be essential to deal better with future pandemics and recovery efforts. Other than telecommunication, a wide disparity is evident in access to basic school infrastructure between developing and developed economies. For example, access to single-sex toilets, basic drinking water and electricity show a high disparity between rich and poor countries. These issues need to be addressed to improve some of the targets under SDG 4.

SDG 5: Gender Equality

SDG 5 seeks to achieve gender equality and empower all women and girls, and proposes a range of targets to end discrimination, violence, and harmful practices, recognise and value unpaid care work, participation, and leadership in decision-making, and provide universal access to sexual and reproductive health and reproductive rights.

Many challenges exist in this regard, despite the progress made. According to the Sustainable Development Goals Report of 2021, nearly one in three women have faced physical and sexual violence at least once since the age of 15, mostly by an intimate partner. Women also face discrimination in determining the laws; evidence from 95 countries and territories shows that more than half the countries surveyed lacked quotas for women in the national parliament. While more than 90% of countries prohibited discrimination in employment based on gender, almost half of these countries continued to restrict women from working in certain jobs or industries. More than 25% of the countries surveyed did not grant women equal rights, unlike men, for entering marriage and initiating divorce proceedings.

Additionally, COVID-19 has adversely affected progress towards gender equality. Globally, women and girls continue to bear a disproportionate burden of the social and economic impacts of the pandemic. Women are more likely than men to experience job losses because they are exposed to hard-hit economic sectors such as the services industry, healthcare, and the informal sectors. The unpaid workload has increased for both women and men during the crisis, but women are doing a disproportionate burden of household chores.

Further, high gender disparity is evident in job losses due to the pandemic. Research shows that women account for 54% of overall job losses from the pandemic, despite only making up 39% of global employment. On a regional level, data from India and the United States (US) suggest that female job loss rates due to COVID-19 are about 1.8 times higher than male job loss rates globally, at 5.7% vs 3.1%, respectively.[7]

[7] Madgavkar, A., White, O., Krishnan, M., Mahajan, D. and Azcue, X. (2020). *COVID-19 and Gender Equality: Countering the Regressive Effects.* McKinsey & Company. Retrieved May 10, 2022, from Mckinsey: https://www.mckinsey.com/featured-insights/future-of-work/COVID-19-and-gender-equality-countering-the-regressive-effects

SDG 6: Clean Water and Sanitation

SDG 6 calls for ensuring availability and sustainable management of water and sanitation for everyone. There has been considerable progress in SDG 6 within the last two decades. The global population using safely managed drinking water and sanitation services grew by 2 Bn and 2.4 Bn, respectively. Global efficiency in water use grew by 10%, from USD 17.30 per cubic metre in 2015 to USD 19 per cubic metre in 2018. However, approximately 2 Bn people lack safe drinking water, and 3.6 Bn people lack safe sanitation services. While the proportion of the global population with basic hygiene rose from 67.3% in 2015 to 70.7% in 2020, around 2.3 Bn people worldwide still lack basic handwashing facilities with soap and water at home, and 670 Mn have no handwashing facility at all. The lack of proper sanitation exacerbates the transmission of pandemics such as the COVID-19 virus.

SDG 7: Affordable and Clean Energy

SDG 7 is aimed "to ensure access to affordable, reliable, sustainable, and modern energy for all". Significant progress is visible in improving access to electricity, increasing renewable energy usage, and improving energy efficiency. For example, access to electricity grew from 83% in 2010 to 90% in 2019 according to the UN Sustainable Development Report 2021. Much progress has been made in renewable energy usage, with renewable energy in total final energy consumption gradually rising to 17.1% in 2018, up from 16.4% in 2010.

However, still, several gaps exist, especially in terms of access to electricity in the least developed countries (LDCs). Accordingly, more than 75% of the population in a quarter of the world's LDCs lack access to electricity. Rural electrification rates are particularly low. Research also shows that the pandemic led to a sharp drop in energy demand due to the lockdowns, and energy consumption decreased as a result. Simultaneously though, progress towards renewable energy also suffered during the pandemic due to a multitude of factors such as lower prices in non-renewable energy, delays in supply chains and plant closures.[8]

SDG 8: Decent Work and Economic Growth

SDG 8 aims to "promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all". Its targets include achieving sustainable economic growth, achieving higher levels of economic productivity through diversification, technological upgrading, and innovation, promoting policies to support job creation, and achieving full and productive employment and decent work for all women and men.

Global labour productivity is seen to have steadily increased since 2015, with yearly average growth in output per worker amounting to around 1.8%. However, there has been considerable regional variation. Between 2018 and 2019, output per worker of the relatively poorer global regions of North Africa, Western Asia, Latin America, the Caribbean and Sub-Saharan Africa declined, in comparison to the rise in worker output in all other regions. The pandemic is likely to hinder global progress in labour productivity due to the decline in global output. Those who cannot work remotely have been affected by the increased exposure to the virus, which increases the stresses of working, especially in the areas of healthcare and medical transport.

[8] Eroğlu, H. (2021). Effects of COVID-19 Outbreak on Environment and Renewable Energy Sector. *Environ Dev Sustain* 23, 4782–4790 (2021). https://doi.org/10.1007/s10668-020-00837-4.

The pandemic has also resulted in job losses/ shortage of work and wage cuts across the world. In particular, the pandemic has affected 1.6 Bn informal workers globally, significantly reducing their incomes. Informal workers have been affected more due to their high vulnerability to loss of jobs and the lack of adequate social protection measures in developing economies. In many developing countries, key sectors such as tourism were severely impacted, reversing the employment and income gains generated by international tourist arrivals. For instance, tourist arrivals are estimated to have fallen by 74%, from 1.5 Bn to 381 Mn in 2020. The estimated loss in tourism earnings is calculated at USD 1.3 trillion (Tn). As a result, the pandemic has resulted in job losses of over 100 Mn, aggravating the pains to the economies which are heavily tourism-dependent.

SDG 9: Industry, Innovation, and Infrastructure

SDG 9 calls for building resilient infrastructure, promoting inclusive and sustainable industrialisation and fostering innovation. The goal targets developing sustainable infrastructure in supporting economic development and sustainable industrialisation and emphasising the role of technology.

The pandemic and the restrictions disrupted global value chains. The global share of manufacturing value added in the gross domestic product (GDP) fell from 16.6% to 16%, while manufacturing employment declined by an average of 5.6% across 2Q 2020. The crisis also impacted the travel and transport segment, and in particular, the aviation sector, with air travel declining by 60% globally.

Yet, the COVID-19 crisis has led to a growth in global innovation. Noticeable growth in the use of technology to complement work from home (WFH) arrangements, including online meetings, online examinations, and online learning are evident. Expansion in global investment in research and development (R&D) in the medical sector revolutionised the vaccine industry. Currently, COVID-19 is also accelerating a structural transition within the manufacturing sector, by shortening supply chains, shifting towards technologically complex products, etc.

SDG 10: Reduced Inequalities

SDG 10 aims to "reduce inequality within and among countries by achieving income growth for the bottom 40% of the population, empowering socio-political inclusion of all and ensuring equal opportunities for all". Global inequality has improved in the last two decades, with decreases in extreme poverty rates and increases in average incomes. The Gini coefficient, an indicator of income inequality, has declined in most developing and emerging economies over the last two decades. Despite this, income inequality remains a major concern in many developed states, as well as large economic powers such as China and India.

As per the UN Sustainable Development Goals 2021 report, the pandemic will increase the average Gini Index by 6%. As such, governments are urged to set policies such as progressive tax systems, and cash and in-kind transfers to reduce economic inequalities. The pandemic has increased pre-existing inequalities in the labour market too. For example, remote working has been largely correlated with education, which has meant lower educated workers being at a higher risk of getting COVID-19, due to the workplace.

SDG 11: Sustainable Cities and Communities

SDG 11 aims to "make cities and human settlements inclusive, safe, resilient, and sustainable". The pandemic has shown how cities

in many countries have become epicentres of COVID-19 due to its congestion, and inadequate urban infrastructures such as water, sanitation, public transport, and open public spaces. Rapid urbanisation has also heralded slums which face chronic issues such as overcrowding, and lack of access to water, sanitation, and social amenities – all of which are key determinants of poor health outcomes. The percentage of people living in slums globally has risen from 23% in 2014 to 24% in 2018. Most slum dwellers live in developing countries, with around 370 Mn people living in East and South-East Asia alone. The pandemic has shown the planning and policy failures of informal settlements due to chronic vulnerabilities of informal settings. There needs to be greater emphasis on SDG 11, as the world moves forward post-pandemic.

SDGs 12-15: Sustainable Consumption and Production Patterns, Climate Change, Life below Water and Life on Land

Several challenges persist in achieving SDGs 12-15. Climate change has caused serious global consequences which include an increased frequency of extreme weather events such as droughts, floods, and cyclones. Such developments have threatened to aggravate water management issues, reducing agricultural production and food security.

Some progress has been achieved in controlling climate change. The reliance on global fossil fuels has been rising at a decreasing rate, as the global fossil CO_2 emissions have been growing at 1% per year between the period 2011-2019 relative to the 3% rise in fossil CO_2 emissions between 2001 and 2010.[9] The pandemic had a temporary positive impact with total greenhouse (GHG) emissions declining by 10% in developed economies and 4% in developing economies. Pandemic control measures such as social distancing and mobility restrictions also reduced energy demand across advanced economies. The reduced demand for air travel also assisted in this regard. Accordingly, the reduction of leisure and commercial activities in ports and major tourist destinations restricted contamination of marine life from plastic, microbiological loads, noise levels and hydrocarbon spillage. The decreased pressure on tourist destinations may also assist with the restoration of the ecological systems.

SDG 16: Peace, Justice, and Strong Institutions

Better institutions support the success of all SDGs. For instance, the implementation of multilateral environmental agreements helps progress towards internationally agreed global environmental goals, while progress in improved law and order helps in creating better living conditions. According to the UN Sustainable Development Goals Report of 2021, around 1% of the global population has been displaced due to conflict, violence, and persecution. The pandemic has weakened the rights of the vulnerable population, especially children, in terms of education. On a more positive note, global homicide rates, a measure of law and order, have declined from 7.3 deaths per 100,000 people in 2002 to 5.36 deaths per 100,000 people in 2019. Yet, major issues such as corruption, trafficking and child labour persist. In 2020, over 160 Mn children (63 Mn girls and 97 Mn boys) were engaged in child labour. The economic impact of the pandemic has posed threats to increasing child labour, with estimates suggesting that around 8.9 Mn children could be exposed, to cover for job and income losses. The

[9] Hausfather, Z. (2021). *Global CO2 Emissions Have Been Flat for a Decade, New Data Reveals.* Retrieved from May 10, 2022, from World Economic Forum: https://www.weforum.org/agenda/2021/11/global-co2-emissions-fossil-fuels-new-data-reveals

pandemic has also increased the opportunities for corruption, especially in terms of bribery to access vaccines and social protection measures.

SDG 17: Partnerships for the Goals

The significance of global partnership to ensure sustainable development was observed after the COVID-19 pandemic, as it affected key sources of capital flows to developing countries from trade, foreign direct investment (FDI), and remittances. According to the Organisation for Economic Co-operation and Development (OECD), global aid flows have grown by 21% between the periods 2015-2021. Overseas development assistance (ODA) grew by 7% between 2019 and 2020 due to pandemic-related emergency funding needs of developing economies. Although bilateral aid flows are necessary for improving the lives of vulnerable populations, these have declined by 3.5% after the onset of the pandemic. Moreover, FDI declined by 40% between 2019 and 2020, due to increased lockdown measures and a negative future economic outlook.

Despite some setbacks during the pandemic, Sri Lanka has improved overall SDG performance since 2016, as indicated by the SDG Index.

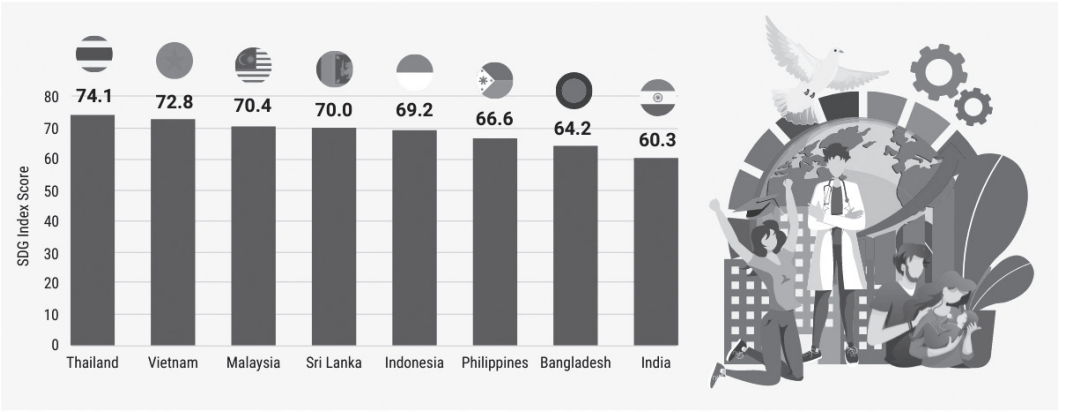
Vaccine distribution, essential to global economic recovery, has been hampered by the issue of vaccine inequality, with poorer countries being unable to compete with richer countries in acquiring vaccines. This has resulted in a 'North-South divide' in global economic recovery. A larger scale-up is essential in international cooperation to improve foreign aid and introduce trade initiatives to help poorer nations bridge the gap and find lasting solutions to sustainable development.

4.3 Sri Lanka and SDGs: Impacts of COVID-19 and Economic Crisis

As discussed in the previous section, the COVID-19 pandemic has impacted many of the 17 SDGs, with some goals including SDG 1 on poverty backsliding the progress made over the past decade. Similar to the experience of other countries, Sri Lanka too reported notable adverse effects of the pandemic on the lives and livelihoods of its population, the poor and the vulnerable in particular. While the pandemic has impacted many SDGs, and seemingly all three dimensions of sustainable development – economic, social, and the environmental – the adverse effects on some SDGs, especially those related to poverty, food security, health and education as well as employment are more prominent.

Despite some setbacks during the pandemic (2020-2021 period), Sri Lanka has shown an improvement in the overall SDG performance since 2016, as indicated by the SDG Index. As per the Sustainable Development Report 2022, Sri Lanka, with an SDG Index of 70, is ranked 76 among 163 countries. This is somewhat close to the overall SDG performance of Malaysia (with an

Sustainable Development Goals Index for Selected Countries, 2022



Source - Sustainable Development Report 2022: From Crisis to Sustainable Development - the SDGs as Roadmap to 2030 and Beyond, (2022).

SDG Index of 70.4) and ahead of countries like the Philippines, India, Bangladesh and Indonesia (see infographic). Moreover, the SDG Index for Sri Lanka is only slightly lower than the average for UMICs (71.5%) and considerably higher than the average for LMICs (61.8%) as well as the East and South Asian average (65.9%).

However, the progress of individual SDGs indicates major challenges to achieving several SDGs including SDG 2 (zero hunger), SDG 3 (health), SDG 6 (water and sanitation), SDG 7 (energy) and SDG 9 (industry, innovation, and infrastructure), despite their moderate performance. Furthermore, SDG 8 on decent work and SDG 5 on gender equity and SDGs 15-17 have been stagnant in their progress, indicating significant challenges to achieve them by 2030. Only a few SDGs such as those on education (SDG 4), climate change (SDG 13) and poverty are shown to be still on track to achieve the goals on time. Nevertheless, Sri Lanka's economic crisis will adversely affect the SDG progress and pose several new challenges to their achievement by 2030.

The economic crisis was caused by a combination of many factors: these include the lack of foreign reserves, disruptions to the tourism industry starting from the Easter Sunday bomb attack in 2019 and the pandemic in 2020, tax cuts that resulted in a significant decline in government revenue and rising crude oil prices partly related to the Russia-Ukraine War and associated sanctions. While the economic crisis has affected the entire population of the country in some way or the other, the poor and the 'near poor' are the most hit by the crisis. With record high inflation, shortage of food and other essentials including medicine at government hospitals, and loss of livelihoods of many, including those in the informal sector, the economic crisis will reverse progress on the SDGs.

Against the above backdrop, this section looks at the effects of the pandemic and any likely implications of the economic crisis on SDGs in Sri Lanka, with special emphasis on the SDGs related to poverty and inequality, food security, health and education and decent work.

4.3.1 Poverty and Inequality

Sri Lanka's performance in poverty reduction over the years is commendable. During the past decade, the extreme poverty rate, measured in terms of population share below the international poverty line of USD 1.90 a day (2011 PPP), has decreased from 3.8% in 2006 to less than 1% (0.7%) in 2019. Similarly, the poverty rate based on the lower-middle-income poverty line (USD 3.20 a day) decreased from 23.6% in 2006 to around 9.2% in 2019. However, this progress achieved over the years has reversed in 2020 to some extent due to the COVID-19 pandemic. As per a study by the World Bank, over 500,000 people are estimated to have fallen into poverty due to the pandemic.[10] This has led to an increase in the USD 3.20 poverty rate from 9.2% in 2019 to 11.7% in 2020, implying a reversal in the progress made towards poverty reduction in Sri Lanka since 2016 (Figure 4.5). The study further finds that the extreme poverty level has nearly doubled in 2020 from its 2019 levels (from 0.7% to 1.2%) and the poverty gap too has increased, indicating that the poor have become even poorer due to the pandemic. The study stresses the impact on employment such as job losses and a fall in earnings as the main contributory factors to the increased poverty rates.

The poverty level can be expected to rise further in 2022, reversing the much-achieved progress in poverty reduction seen over the years.

Further, the World Bank's Macro Poverty Outlook for Sri Lanka (April 2022) estimates poverty levels to have fallen slightly in 2021 from its 2020 level, but the forecast remains above the 2019 level for the next few years (Figure 4.5).[11] However, the current economic crisis, especially soaring prices of food, fuel and other essential goods, along with adverse impacts on the livelihoods of many workers – particularly, the informal sector workers – means the risks of higher poverty are high. The poverty level can be expected to rise further in 2022, reversing the much-achieved progress in poverty reduction seen over the years.

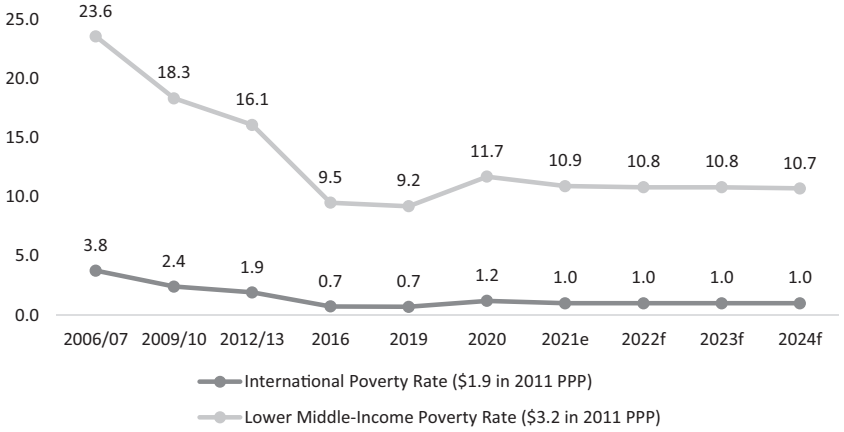
Similar to the patterns of the USD 1.90 and USD 3.20 a day poverty lines, the Poverty Headcount Index (HCI) based on the national poverty line too shows a declining trend until 2019 (Figure 4.6). The poverty rate has declined from 46.8% in 2002 (based on the updated poverty line) to 14.3% in 2019. A similar pattern can be seen in the old poverty line too, where it has fallen from 22.7% to 3.2 % during 2002-2019.[12] Despite the considerable decline in the poverty rate at the

[10] World Bank. (2021). *Sri Lanka Development Update 2021: Economic and Poverty Impact of COVID-19.* Colombo: World Bank.

[11] World Bank. (2022). *Macro Poverty Outlook for Sri Lanka: April 2022 (English). Macro Poverty Outlook (MPO).* Retrieved May 10, 2022, from World Bank Group: http://documents.worldbank.org/curated/en/099155004242210138/IDU00e3dca3e035c704cfa0b36f03152bed719cc

[12] The poverty line was updated in 2019 based on 2012/2013 data and taking into consideration the changes in spending and consumption patterns of households over time. As per the 'Updated Poverty Line', people living in households whose real per capita monthly total consumption expenditure is below LKR 6,966 in the year 2019 in Sri Lanka are considered poor. This is LKR 4,844 as per the old poverty line (DCS, 2022).

Figure 4.5
Poverty Rates based on USD 1.90 and USD 3.20 a Day Poverty Lines



Note: e- estimates; f- forecast.
Sources: World Bank. *(2022). Macro Poverty Outlook for Sri Lanka.* Colombo: World Bank.
World Bank. (2021). *Sri Lanka Development Update 2021: Economic and Poverty Impact of COVID-19.* Colombo: World Bank.
Nanayakkara, W. (2018). *Digging Deep: A Closer Look at Income Poverty in Sri Lanka.* Talking Economics. Colombo: Institute of Policy Studies of Sri Lanka.

national level, the districts of Mullaitivu, Badulla, Nuwara Eliya, Jaffna and Kilinochchi still have over 25% of their population living in poverty, with Mullaitivu recording a 44.5% poverty rate followed by 32.3% in Badulla. Significant differences in poverty rates are also observed across the three sectors of the country (urban, rural and estate) with the estate sector having around one-third of its population (33.8%) in poverty. The respective figures for urban and rural sectors are 6% and 15%, respectively, as per the updated poverty line for 2019.

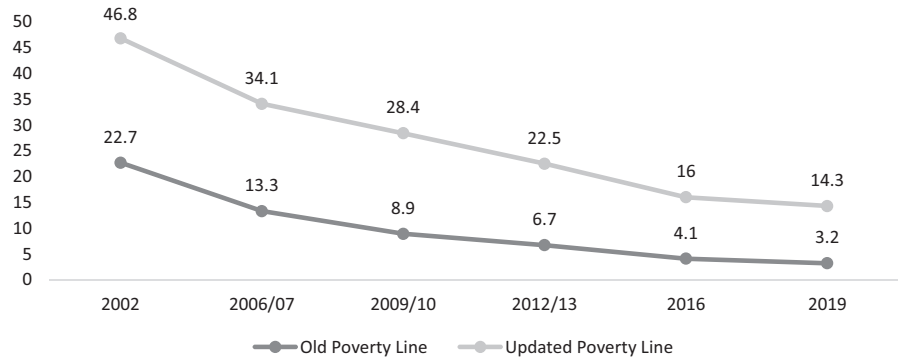
Considering the trend of USD 1.90 and USD 3.20 a day poverty rates (Figure 4.5), it can be expected that the poverty rates based on the national poverty lines also to have increased since 2020 due to the pandemic. Poverty rates are likely to increase further in 2022 due to the ongoing economic crisis in Sri Lanka.

Multidimensional Poverty

Compared to the different poverty lines discussed above, the Multidimensional Poverty Index (MPI) can be considered a broader (and complementary) measure that captures multiple deprivations such as access to health, education, water, sanitation, housing, etc. The level of multi-dimensional poverty in Sri Lanka was higher in 2019 compared to the income poverty discussed above. Approximately one out of every six (16%) people in Sri Lanka were multidimensionally poor.[13] In the estate sector more than half (51.3%) of the population lived in poverty as per the MPI. Notable district-wise variations exist with Nuwara Eliya having 44.2% of its population multi-dimensionally poor. This is followed by Badulla (36.6%) Monaragala (32.7%) and Ratnapura, Mannar and Vavuniya (26-28%). In these districts, multidimensional poverty is higher than income poverty. By contrast, multidimensional poverty

[13] Department of Census and Statistics. (2022). *Household Income and Expenditure Survey 2019- Final Report.* Battaramulla: Department of Census and Statistics.

Figure 4.6
Poverty Rates based on the National Poverty Lines of Sri Lanka – Updated Poverty Line vs Old Poverty Line

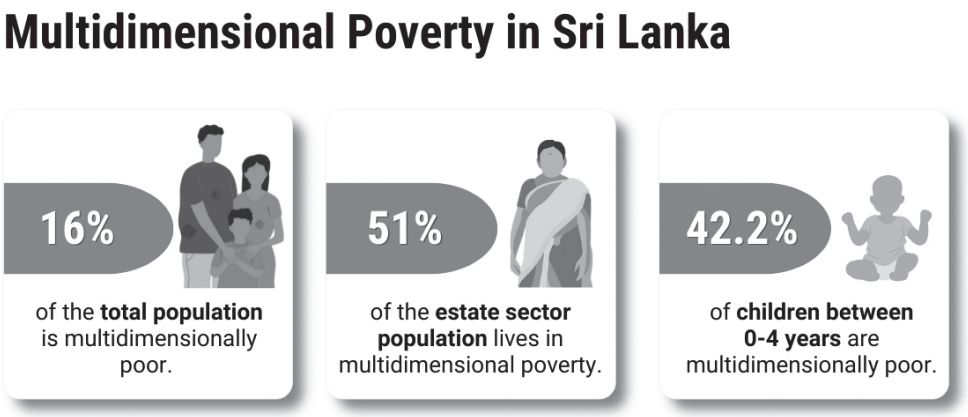


Note: The 'Updated Poverty Line' is the poverty line that was updated/revised in 2019 based on 2012/2013 data, taking into consideration the changes in spending and consumption patterns of households over time.

Source: Poverty Indicators 2019 based on the Household Income and Expenditure Survey (HIES) by the Department of Census and Statistics (DCS), (Various years).

in districts like Colombo and Gampaha is much lower (3.5% and 5.1%).

The highest deprivation was found to be cooking fuel, where 14.5% of the population is multidimensionally poor and deprived in that indicator. High levels of deprivation are also found in access to drinking water (13.5%), access to basic facilities (12.6%), and access to health facilities (11.9%). In addition, the child MPI for Sri Lanka indicates that 42.2% of children of 0-4 years were multidimensionally poor and that 33.4% of them were underweight or stunted (in 2019). The economic crisis, in particular, rising prices of food, shortage of rising prices of other essential goods like fuel and adverse effects on employment across several sectors can further aggravate deprivation among children as well as adults in the country, hindering the achievement of SDG 1 on poverty.



Sources: Department of Census and Statistics, (2022) and Household Income and Expenditure Survey - Final Report, (2019).

Inequality

Despite the performance in poverty reduction until 2019, income inequality remained a concern in Sri Lanka for several years, even before the pandemic. The Gini coefficient of household income that remained at around 0.48-0.49 since 2006/2007 indicates a high level of income inequality. It declined slightly to 0.45 in 2016 but again increased to 0.46 in 2019.[14] This indicates a relatively higher level of income inequality in Sri Lanka compared to its regional peers. The Gini coefficient of household expenditure has remained at around 0.40-0.41 over the past decade.

An effective social protection system that covers all population segments is key to reducing poverty and inequality in the country.

Inequality is expected to widen, with potential long-term consequences of the pandemic and the country's ongoing economic crisis. As per World Bank estimates, the impact of the pandemic is expected to have slightly widened inequality in 2020 (compared to the 2019 level),[15] which can be largely attributed to relatively larger income losses due to the pandemic among households in the bottom income groups (compared to those in richer groups).

In addition to income inequality, rising inequality in access to services too can result in increased inequality in the long run. For example, widening inequality in access to education during the pandemic/economic crisis due to difficulties in accessing digital education by children from poorer families can have long-term effects on the education outcomes of those from low-income groups. This could even widen the disparities in access to opportunities (e.g. economic opportunities) among children from poorer and richer groups, thereby contributing to a rise in inequality in the long run.

The existence of an effective social protection system that covers all segments of the population is key to reducing poverty and inequality in the country. Implementing social protection systems including social protection floors, and achieving substantial coverage of the poor and the vulnerable by 2030 is an important target of SDG 1 (Target 1.3). It also aims to help achieve several other SDGs, including goals related to zero hunger (SDG 2), decent work (SDG 8) as well as health and education (SDGs 3 and 4).

Despite many social protection programmes in Sri Lanka, the existing system has several shortcomings: low coverage, the inadequacy of benefits and targeting errors of many programmes, and lack of coordination/integration among various social protection programmes (and their implementing agencies), have resulted in high administrative costs and overlap of beneficiaries. The pandemic too has highlighted

[14] Department of Census and Statistics. (2022). *Household Income and Expenditure Survey 2019- Final Report.* Battaramulla: Department of Census and Statistics.

[15] World Bank. (2021). Sri Lanka Poverty *Assessment: Accelerating Economic Transformation- Synthesis Report.* Washington, D.C.: World Bank.

the significance of strengthening the country's social protection system to ensure greater resilience against crises. Some essential measures include broadening social protection (particularly to include those who are not covered by the system, including informal sector workers), building an integrated social protection system (with an integrated social registry and beneficiary registry) and creating sound delivery systems with digital payment mechanisms to ensure efficient and safe service delivery.[16]

However, securing and sustaining adequate investment for social protection is a key challenge for broadening social protection in a country. This would require recognising social protection as an integral part of the country's development plan and raising budgetary allocations to social protection which primarily depends on political will and commitment and other priorities. Increasing investment in social protection may require mobilising resources through various measures such as increasing tax revenue, reallocating public expenditure from non-priority sectors, and increasing contributory revenues by linking benefits to employment-based contributions. Social protection expenditure in Sri Lanka (excluding healthcare and special COVID-19-related support) is estimated to be around 3% of GDP (in 2020),[17] which is much lower compared to the average of the Asia Pacific Region.

4.3.2 Zero Hunger and Food Security

SDG 2 on "end hunger, achieve food security and improved nutrition, and promote sustainable agriculture" is one of the highest priority SDGs for a country, especially due to its intrinsic links to many SDGs. Target 2.1 requires ending hunger and ensuring access by all people, including the poor and vulnerable people, to safe, nutritious and sufficient food all year round by 2030 while Target 2.2 requires ending all forms of malnutrition including stunting and wasting in children under five years of age.

As per Sri Lanka's first Voluntary National Review (VNR) report of 2018, before the pandemic, the country had made much progress in some areas related to SDG 2, including achieving near self-sufficiency in rice production. Yet, there were concerns over the nutritional status of children. The level of undernutrition/malnutrition among children under the age of five has hardly shown any improvement during the 2006-07 to 2016 period. As per the Demographic and Health Survey (DHS) data, in 2016, 21% of children (under the age of five) were underweight while 17% of children were stunted and 15% were wasted while the comparative figures for 2006-07 were 21.1%, 17.3% and 14.7%, respectively.

The COVID-19 pandemic has had some adverse effects on food security as well as nutritional status among children, with those vulnerable groups such as low-income households being the most affected. In 2019, Sri Lanka was ranked 66 among 113 countries in the Global Food Security Index (GFSI). However, owing to the effects of the pandemic, Sri Lanka has been pushed back to 75 among 113 countries in 2020.[18]

Worsening the above situation, soaring food prices and food shortages since early 2022 is likely to have seriously adverse implications on

[16] For more details, see *Sri Lanka State of the Economy 2020,* Chapter 6 on 'Harnessing Social Protection During Pandemics', published by the Institute of Policy Studies of Sri Lanka.

[17] Tilakaratna, G., Arunatilake, N., Wanigasinghe, L. & Ranasinghe, S. (2022). *'Comprehensive Landscape Mapping of Current Social Protection System in Sri Lanka'* report prepared for and funded by UNDP Sri Lanka (unpublished).

[18] Central Bank of Sri Lanka. (2021). *Annual Report 2021.* Colombo: Central Bank of Sri Lanka.

food security in the country, particularly affecting those from low-income groups, most of whom have already been struggling to put food on the table during the pandemic. Several factors have contributed to the recent surge in food prices in the country. These include the depreciation of the Sri Lankan Rupee (LKR), the government's abrupt move towards organic agriculture and the rise in world fertiliser prices, the imposition of food import restrictions and removal of price ceilings on essential food items, and adverse global market conditions due to the Russia-Ukraine war.

Spiralling food prices along with shortage of (and rise in prices of) essential goods including fuel can directly or indirectly affect the nutritional status of the population, further aggravating malnutrition among children. These developments stress the need for a combination of measures to improve food availability as well as accessibility, including measures to enhance food production domestically using high yield varieties, improving the efficiency of the food distribution system and safety nets to ensure access to adequate nutrition by the vulnerable groups.

4.3.3 Health and Education

Sri Lanka's universal free healthcare over the past several decades has helped the country to achieve high performance in key healthcare indicators such as infant mortality rate, under-5 mortality rate, maternal mortality ratio as well as life expectancy at birth. As was highlighted in the VNR 2018 report, Sri Lanka achieved the maternal mortality rate global target (70 per 100,000 live births) under the SDGs (Target 3.1) more than two decades ago. In 2015, Sri Lanka's maternal mortality rate stood at 33.7 per 100,000 live births. Additionally, the under-5 mortality rate and the neonatal mortality rates too remained at levels lower than the relevant target under SDG 3 (Target 3.2).

Yet, some concerns remain related to the healthcare sector including growing levels of NCDs and emergence of new infections, notable disparities in the quality of healthcare services in hospitals across districts/sectors, rising out-of-pocket expenditure and low investments in healthcare in Sri Lanka compared to many countries in the region. Further, COVID-19 had several negative implications on the country's health system, where the number of COVID-19 infected cases amounted to around 664,000 while the total deaths reached over 16,500 by mid-2022. However, Sri Lanka's COVID-19 vaccination programme can be considered somewhat of a success story in the South Asian region. By mid-2022, around 97% of the population aged over 12 years had been vaccinated with the first dose, while 85% had been vaccinated with the second dose as well.[19] In addition, about 55% of those above 12 years had received the booster vaccine too, indicating a considerably higher coverage compared to many other countries in the region. Nevertheless, the current economic crisis in Sri Lanka has already had serious implications on the health sector of the country, with considerable shortages of medical items/equipment including essential medicine, a rise in the price of medicines and challenges to the healthcare workers to provide continuous services due to transportation issues resulting from the fuel crisis in the country.

Somewhat similar to the case of the health sector, Sri Lanka has achieved notable progress in terms of basic education indicators such as net primary and secondary enrolment ratios as

[19] Presidential Secretariat. (2022). *Vaccination Statistics.* Retrieved May 10, 2022, from Presidential Secretariat: https://covid19.gov.lk/vaccination-statistics.html

well as literacy ratios that are on par with more developed countries, and considerably higher than the South Asian averages. These are primarily a result of the universal free education policy implemented since the mid-1940s and various other programmes that have also been introduced by successive governments over the years, including free textbooks and free school uniform material for all government school students and various scholarship programmes. Yet, notable disparities are evident in terms of resources between urban schools and rural schools.

Disparities in terms of access to quality education among students from poorer and richer groups have been further heightened by the COVID-19 pandemic since 2020 due to prevailing disparities in access to digital technology required for online education. This situation is likely to continue further in 2022 as well due to the challenges to the education system posed by the ongoing economic crisis in the country. This could further widen disparities in education outcomes and exacerbate the inequalities in access to future economic opportunities between children from diverse socioeconomic groups.

4.3.4 Decent Work

Despite the decline in the unemployment rate over the past decade, Sri Lanka's labour market has faced several challenges over the years. Before the pandemic, the overall unemployment rate fell below 5%, yet the female unemployment rate has been more than double the corresponding rate of males. Moreover, youth unemployment has been a major concern for Sri Lanka (with an unemployment rate of over 20% over the years). Further, nearly 60% of the employed are in informal sector employment with little or no social protection coverage and this proportion has declined only marginally over the past decade. The labour force participation rate among females has continued to remain low over the years, at less than half that of the rate for males (34% vs 76.6% in 2020).[20] In addition, a relatively high level of unemployment among educated youth, particularly graduates, and associated skills mismatch in the labour market are also among key issues related to Sri Lanka's labour market.

The COVID-19 pandemic and the current economic crisis are likely to have several adverse implications on the country's employment level and labour market, posing challenges to the achievement of SDG 8 on economic growth and decent work by 2030. The pandemic and the movement restrictions, in particular, affected workers across all employment categories. Yet the effect has been more severe among informal sector workers like daily wage earners, casual workers as well as self-employed persons. Adding to this, a considerable number of private sector workers too had experienced job losses and wage cuts due to the pandemic. This is partly due to a result of a large number of informal workers in Sri Lanka's private sector, in the form of contractual or casual workers. The pandemic has also increased the unemployment rate, particularly among the youth. As per Labour Force Survey (LFS) data, the overall unemployment rate has increased by 0.7 percentage points during 2019-2020. However, the unemployment rate among youth (those between 15-24 years) has increased by 4.5% percentage points from its already high level of 21% in 2019 to 25.7% in 2020, implying an over 20% rise in the youth unemployment rate between 2019 and 2020. [21]

[20] Based on the Labour Force Survey 2020, by the DCS.

[21] Based on *Sri Lanka State of the Economy 2021* published by the Institute of Policy Studies of Sri Lanka.

Sri Lanka's labour market has continued its recovery from the pandemic-related slowdown from 2021. The labour force grew by 1% in 2021 to 8,533 Mn people from 8,467 Mn in 2020. Despite the marginal growth of the labour force, the economically inactive population also increased by about 1%. High inactivity amongst rural females seeking employment could be a COVID-19-related side effect. Meanwhile, the employed population too increased marginally between 2020 and 2021. While employment in the services and agricultural sectors grew, the share of employment in the industry sector dropped from 26.9% to 26%. The unemployment rate declined according to the latest statistics, from 5.5% in 2020 to 5.1% in 2021, showing some recovery from the pandemic.

Despite the improvements in employment rates, and declines in unemployment rates, labour productivity, measured in terms of gross value added (GVA) (in 2010 prices) per hour worked, declined by 2.6% to LKR 562.15 per hour worked in 2021 from LKR 577.36 per hour worked in 2020, with all three sectors – agriculture, industry and services – showing a decline in labour productivity.[22] Furthermore, with the ongoing economic crisis in Sri Lanka, labour market conditions are likely to get more challenging in the near-term.

4.4 Conclusions and Policy Implications

As discussed in previous sections, since the adoption of SDGs, successive governments in Sri Lanka have taken various measures to mainstream SDGs and accelerate their progress. Before the pandemic, notable progress was seen on several SDGs and targets including SDG 1 on poverty and SDGs 3 and 4 on health and education. Yet, the COVID-19 pandemic adversely affected the significant progress of several SDGs, particularly those related to poverty, inequality, and decent work. Worsening the prevailing situation, the current economic crisis is likely to further affect several goals across the 17 SDGs. Thus, achieving SDGs in Sri Lanka has become even more challenging now than ever before. This highlights the need for priority measures to reverse any negative implications and accelerate the progress of SDGs.

While the country has committed to achieving all 17 SDGs (and the 169 targets) by 2030, given the complexity of SDGs and the enormous challenges to achieving them, it is desirable to prioritise the goals/targets that are deemed most important. Prioritisation must be based on the country's development needs and synergies

Given the complexity of SDGs and the enormous challenges to achieving them, it is desirable to prioritise the goals/targets that are deemed most important.

[22] Central Bank of Sri Lanka. (2021) *Annual Report 2021.* Colombo: Central Bank of Sri Lanka.

and trade-offs between SDGs/targets. Prior to the pandemic, Sri Lanka carried out a significant exercise to prioritise SDG targets and identify accelerants to implement SDGs. As a result, 36 SDG targets (covering all 17 SDGs) were identified as national priorities based on a scoring and ranking system.[23] Nevertheless, with the new challenges posed by the pandemic and the current economic crisis, it is vital to re-look at them and identify the goals/targets that are of immediate priority to focus on during the next 2-3 years. Given the huge financial constraints and adverse implications of the economic crisis, it would be important to prioritise SDGs related to poverty and inequality (SDG 1 and 10), food security (SDG 2), economic growth and decent work (SDG 8), health (SDG 3) education (SDG 3) and energy (SDG7).

While various goal specific measures/policies are required to accelerate the progress of SDGs, some key measures/challenges are discussed below.

4.4.1 Financing SDGs

Financing SDGs has become the biggest challenge for Sri Lanka. The economy is currently going through a severe economic downturn beset by structural problems such as continuous high budget deficits and current account deficits. On the domestic front, government expenses increased with the pandemic whilst revenues plummeted, largely as a result of tax cuts introduced in 2019. On the external front, foreign income earnings from remittances and tourism dropped, while economic shocks such as the Russia-Ukraine crisis continue to disrupt the global economy, worsening the global macroeconomic climate. Other types of inflows such as FDI into the country have also reduced post-COVID-19 as the economic and business landscape uncertainties have mounted. Financing has become even tighter following Sri Lanka's inability to access international bond markets after the selective default of foreign debt payments in April 2022. All these issues have widened the financing gap to achieve SDGs. It is against this background that Sri Lanka needs to prioritise resource mobilisation and financing.

Traditional SDG Financing: Domestic resource mobilisation is essential if Sri Lanka is to make progress on SDGs. Generally, traditional SDG financing includes government financing and ODA from foreign governments.

Sri Lanka's government revenues were down to a low of 8.7% of GDP in 2021, owing to the relaxation of taxes, slower economic revival, and the continuation of import restrictions. In the meantime, government expenditures rose to 21% of GDP due to increased spending on key components such as salaries and interest expenses. In June 2022, key tax reforms were announced to reduce the budget deficit, and signal reforms towards medium-term debt sustainability as part of negotiations towards an International Monetary Fund (IMF) programme. The announced reforms included higher rates for personal income and corporate taxes, and value-added tax (VAT). Alongside these, subsidies will have to be further targeted and reduced. Sri Lanka's debt sustainability objectives and associated fiscal adjustments can impose delays in meeting the country's overall SDGs.

In Sri Lanka's case, ODA has also been on a declining trend as it moves up the income ladder. Currently, ongoing negotiations are taking

[23] Tilakaratna, G., & Sooriyamudali, C. (2019). *Interpreting SDGs for South Asia: In Search of a Regional Framework -The Case of Sri Lanka. Bangkok:* UNESCAP-SSWA.

place with bilateral and multilateral partners on bridging financing to cover the immediate funding requirements for essentials such as fuel and medicines. Given this situation, financing SDGs would be extremely challenging in the months to come. Foreign aid should be focused on covering the essential needs of the people first (e.g. food security, social protection, healthcare, power/fuel). In the medium term, however, there needs to be more emphasis on financing other SDGs, especially those related to education, employment, industry, innovation, and infrastructure. Attracting private investment to SDGs too will be crucial.

Non-traditional SDG Financing: The road map for Sustainable Finance in Sri Lanka, developed by the Central Bank of Sri Lanka (CBSL) highlights some of the non-traditional instruments in SDG financing. These include green bonds which are specific to development projects based on environmental protection and climate change. Recently, capital markets have also become a driving force in the race towards a sustainable future. The Environmental, Social and Governance (ESG) bonds market can be explored by Sri Lankan companies. The Sri Lanka Green Finance Taxonomy initiative, developed by the CBSL, defines and categorises environmentally sustainable economic activities. This will help in future ESG financing and green bond initiatives.[24] However, green bonds and ESG financing focus more on the environmental/climatic aspect. Sri Lanka needs to expand spending on critical areas such as poverty alleviation (SDG 1) food security (SDG 2) and healthcare (SDG 3). Strengthening multilateral and bilateral partnerships would be crucial in this regard, particularly given the current economic crisis and the lack of fiscal space.

4.4.2 Strengthening Partnerships

The principle of inclusive engagement is deeply embedded in the 2030 Agenda. Multistakeholder engagement – including government agencies, the private sector, and civil society organisations – is key to achieving SDGs and ensuring an inclusive process. Moreover, enhancing regional and global partnerships to mobilise and share knowledge, expertise, technology and financial resources is crucial to supporting the achievement of SDGs.

South-South cooperation is also an avenue that needs to be further explored by Sri Lanka. In fact, regional cooperation is an area with great potential that has not yet fully entered the SDG discourse in Sri Lanka. Regional cooperation can help accelerate the progress of several SDGs, in particular, SDGs related to food security (SDG 2), health (SDG 3), energy (SDG 7), decent work (SDG 8) and climate action (SDG 13).[25] In addition, many other areas can reap potential benefits of regional cooperation which could help Sri Lanka in achieving SDGs. For example, concerning SDG 1 on poverty, enhanced regional cooperation can take the form of sharing knowledge and experience related to poverty alleviation programmes and social protection programmes. Sri Lanka could learn from the experience of the neighbouring countries to make its social protection system more effective by using technological innovations such as digital technology. The potential for regional and global partnerships to accelerate SDG progress as well as mobilise resources is reiterated in recent years by the COVID-19 pandemic and the related economic fallout.

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[24] Central Bank of Sri Lanka. (2022). *Sri Lanka Green Finance Taxonomy.* Colombo: Central Bank of Sri Lanka.

[25] For a detailed analysis, refer to Tilakaratna, G., & Sooriyamudali, C. (2019). *Interpreting SDGs for South Asia: In Search of a Regional Framework -The Case of Sri Lanka.* Bangkok: UNESCAP-SSWA.

4.4.3 Addressing Data Deficits

The SDG framework necessitates monitoring of the 17 SDGs (and related targets) at regular intervals to understand their progress, identify existing gaps and come up with measures to accelerate progress. Given a large number of targets and indicators associated with the 17 SDGs, the data required for SDGs is considerably higher than what was required to achieve the previous Millennium Development Goals (MDGs). Furthermore, SDGs require data disaggregated by gender, age, location, race, ethnicity, disability, etc., to ensure that "no one is left behind". In addition, the interlinkages between the three dimensions of sustainable development – social, economic and the environment – and the 17 SDGs further increase the complexity of the nature of data required to effectively monitor the SDGs.

While Sri Lanka has made much progress in terms of liaising with the relevant agencies to compile the required data to some extent, the lack of more up-to-date data at regular intervals (e.g. annual basis) and lack of disaggregated data (by gender, location, age, etc.) for many SDGs is a significant drawback for monitoring. Given these data gaps, it is important to improve the availability of high-quality, timely, reliable, and appropriately disaggregated data for SDGs. This requires improving the capacity of relevant agencies as well as strengthening partnerships among various stakeholders. There is also some scope for strengthening regional cooperation for improving statistical capacity in Sri Lanka and sharing knowledge and experience among these countries.

5. Anchoring the 2030 Agenda in National Development Strategies

5.1 Introduction

As Sri Lanka emerges from the socioeconomic disruptions of the coronavirus (COVID-19) pandemic to face its worst-ever economic crisis since independence, the lack of political discipline and poor institutional coordination in the policy arena is once again in the spotlight. Policy integration and management of policy responsibility within institutions have been continuously weak owing to conflicting interests between policymakers responsible for diverse sectors and levels of government. For Sri Lanka to emerge from this crisis and improve preparedness to be well positioned in the future, economic policy strategising has to be supported through a well-coordinated institutional mechanism to accomplish the expected growth and development outcomes.

In this context, the United Nations (UN) 2030 Agenda on the Sustainable Development Goals (SDGs) is a useful and comprehensive framework to coordinate such efforts across a wide variety of development issues. In Sri Lanka, anchoring the SDGs into the country's planning process becomes all the more crucial in the absence of an existing strong national development framework and an associated process for an efficient allocation of resources. Sri Lanka's Public Investment Programme (PIP) currently serves as one of the main development planning communiques that reflects the socioeconomic

Anchoring the SDGs into Sri Lanka's planning process becomes more crucial in the absence of an existing strong national development framework and an associated process for an efficient allocation of resources.

vision of the government in office.[1] In developing the PIP, the Budget serves as the key source of annual capital expenditure estimates and forms the resource allocation of the medium-term PIP. In this process, while successive governments often claim that efforts are being made to mainstream SDGs into the national planning process, the results are not very encouraging.[2]

The UN 2030 Agenda provides a framework that could effectively streamline the national development planning processes to make better domestic policy choices in developing economies.

By contrast, SDGs rely on results-based management thinking. As there is flexibility in setting priorities through a national consultative process, SDGs also allow more opportunities for promoting national goal-setting and associated national planning initiatives. Hence, SDGs could be used as a 'framework' to streamline Sri Lanka's development planning process. In this context, two SDGs are vital in the mainstreaming process: Goal 16 (peace, justice and strong institutions) which encourages government and citizen participation in the decision-making process and Goal 17 (partnerships for the goals) which fosters global, regional, national and sub-national partnerships. Against this background, the purpose of this chapter is twofold. The first is to analyse the effectiveness of SDG mainstreaming into national development planning in Sri Lanka. The second is to suggest policy implications highlighting the international best practices to guide the sustainable future economic development of the country.

5.2 Effectiveness of SDG Mainstreaming

5.2.1 New National Planning

In general, SDGs are to be implemented through nationally formulated plans that reflect the development priorities and contexts of respective countries. The understanding of development planning techniques facilitates effective mainstreaming. There are two paradigms in planning: 'linear rationality' and 'collaborative or instrumental rationality'. The first, linear rationality, is a classical planning approach in which planning is seen as an organised, conscious and continual attempt to select the best available alternatives to achieve specific goals.[3] Here, a plan becomes a blueprint document designed by technocrats. It describes national development as a 'problem' and the outcomes of public interventions are

[1] Department of National Planning. (2017). *Public Investment Programme 2017-2020.* Colombo: Ministry of National Policies and Economic Affairs, Sri Lanka.

[2] Sachs, J., Kroll, C., Lafortune, G., Fuller, G., & Woelm, F. (2021). *Sustainable Development Report 2021.* Cambridge: Cambridge University Press.

[3] Bromley, R. (1978). The Planning Process: Lessons of the Past and A Model for the Future. *The IDS Bulletin, 9*(3), 44-48.

predicted and optimal policies are identified. Plans, therefore, pursue agreed and defined development goals, minimise costs and risks, and maximise benefits and opportunities.

The second is collaborative rationality and in this approach, planning is seen as a process of communication and negotiation on desired future outcomes with many stakeholders that reflect their self-interest built around shared values.[4] Here, the national plan is not an end of a technical-analytical exercise but an outcome of ongoing social deliberations involving constant (re)negotiation of goals, policies and actions to make technically desirable and politically feasible choices. Both these approaches have their merits and demerits. Historically, Sri Lanka practised linear rationality in development planning. The blueprint nature of the PIP, however, has now been transformed into a 'rolling plan approach' allowing more flexibility to incorporate updates following an annual review on local and global developments while keeping intact the medium-term perspective.

Despite the failure of centrally planned economies in the 1950s and 1960s, increasing interest in national development planning is evident since 2015, which is now termed 'new national planning'.[5] Indeed, it has been witnessed that new national planning has implications on how countries respond to SDGs. Developing countries formulate national plans for four main reasons: 1) to face the fears and opportunities of economic globalisation, 2) to incorporate the challenges of SDGs, 3) as a counter-narrative to the 2030 Agenda, and 4) to fulfil the conditionalities set by the International Monetary Fund (IMF), especially in heavily indebted poor countries.

Between 2006 and 2018, the number of countries with a national development plan has more than doubled – i.e. a growth from 62 to 134. Thus, 80% of the global population now lives in a country with a national development plan. As such, it suggests that developing countries are supporting their development through a set of systematic processes, policies and practices. In addition to this, a need also exists to improve sub-national development planning to encourage substantial civil society participation in the mainstreaming process.

5.2.2 SDGs to Steer National Planning and Budgeting Processes

The UN 2030 Agenda provides a framework that could be effectively used in streamlining the national development planning processes to make better domestic policy choices in developing economies.[6]

Mainstreaming SDGs into the national development framework should be done, corresponding with the national development priorities. To this end, a consistent macroeconomic framework is required, in which the public investments and other government expenditures are capped to prevent unproductive expenditures and efficient management of scarce resources. Further, sectoral or compartmentalised development planning discourages the achievement of intended benefits and realising the full development potential of

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[4] Innes, J. E., & Booher, D. E. (2010). *Planning with Complexity: An Introduction to Collaborative Rationality for Public Policy.* Oxfordshire: Routledge.

[5] Chimhowu, A. O., Hulme, D., & Munro, L. T. (2019). The 'New' National Development Planning and Global Development Goals: Processes and Partnerships. *World Development, 120,* 76-89.

[6] Okitasari, M., & Katramiz, T. (2022). The National Development Plans After the SDGs: Steering Implications of the Global Goals Towards National Development Planning. *Earth System Governance, 12,* 100136.

a country. Hence, SDGs (goals, targets and indicators) should be used as a tool to improve sectoral coordination within and outside the central planning agency in the country. Therefore, the effectiveness of development expenditures could be enhanced by employing an SDG-backed consistent macroeconomic framework.

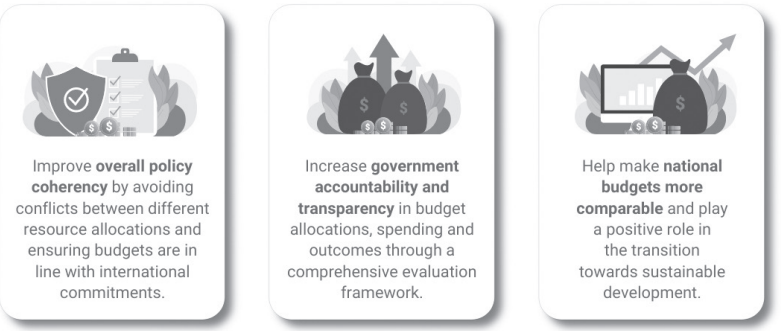
The accomplishment of SDGs depends on how countries seek to bridge cost gaps. Given that mobilisation of resources is done through national budgets, a genuine will and commitment of the executive branch of the government in this process are important. Without a clear mandate and political commitment, the realisation of the SDGs would become harder in justifying for SDG-related budgetary expenditures. Therefore, understanding the importance of integrating SDGs into national budgeting by politicians is vital for success.

There are three reasons why a country should incorporate the SDGs into their budgetary processes.[7] First, aligning budgets with the SDGs improves overall policy coherence, which reinforces the very nature of the SDGs as being overarching and intertwined. Policy coherence can be interpreted in two ways to budgets: a coherent budget avoids conflicts between different resource allocations and budgets should be in line with other international commitments, regardless of whether these are legally binding.

The second is that the SDGs could enhance accountability. To this end, forging links between budgets and the SDGs, especially the Indicator Framework, can reveal a country's progress towards the SDGs and help assess the government's performance. While most countries use performance-based budgeting that relies on result indicators, the SDGs could add a holistic layer of criteria to evaluate the sustainability of a budget. Thus, the SDGs can serve as an evaluation framework to provide a more comprehensive assessment of budget proposals and therefore improve transparency for non-governmental actors, notably parliament and civil society. This may foster government accountability in budget allocations, actual spending, results, etc.

The third is that the SDGs could help make national budgets more comparable and thus contribute to the global ranking of sustainable

Why Should SDGs be Integrated into National Budgets?



[7] Hege, E., & Brimont, L. (2018). Integrating SDGs into National Budgetary Processes. *Studies,* 5(18). p.20. Paris: IDDRI.

The need for a different political culture and political will could be made a reality through the SDG framework.

development policies. This could play a positive role in the transition towards sustainable development if it promotes exchanges between policymakers and experts from various countries and feeds the international debate with collective intelligence. It could also serve as a tool for civil society to hold states accountable for their commitments.

Integrating the SDGs into national budgetary processes could be done in various ways. The SDG implementation strategy and the degree to which the SDG framework has been translated into national contexts and priorities are the two key ways of budgetary integration. Linking SDGs to the national budget is easier when a national development framework that highlights the development priorities is in force. The process can be supported by independent gap analysis. However, high-level political support is essential for its success.

The involvement of the Ministry of Finance is a must for integration. Intrinsically motivated SDG budgetary integration is always preferable, rather than being forced to do so. The use of the SDG framework as a management tool in resource allocation is beneficial for both the Ministry of Finance and line ministries. This ensures that resources are allocated to SDG-related development programmes. It is also emphasised that the tools developed to examine the SDG integration into the national budget should be used by parliamentarians and national audit offices. This helps to hold governments accountable for their commitments toward the 2030 Agenda.

The good practices shared on budgeting for SDGs are significant in improving the integration process.[8] First, it is required to foster awareness of the national budget process among civil servants. Literacy in budgetary processes assists not only in successful SDG integration but also in making the respective officials accountable for using government finances. Further, SDGs could be used as a risk management and foresight planning tool too, so that a successful integration provides the opportunity to improve policy coherence in budget negotiations.

Importantly, the 2030 Agenda discourages unsustainable financing. Given the complexity of SDGs and resource constraints, without focusing on all 17 SDGs simultaneously, prioritising and selecting a few (1-2 SDGs at a time on an annual basis) would be more realistic. Furthermore, the SDG integration should be supported through a review of government spending. This makes budgetary alignment more transparent and effective. In sum, the need for a different political culture and political will could be made a reality through the SDG framework.

[8] Pisano, U., & Berger, G. (2016). *Developing the ESDN Peer Learning Approach to Support the Implementation of the 2030 Agenda for SD and the SDGs.* Vienna: Institute of Managing Sustainability.

5.2.3 Financing the SDGs

A key consideration of the quality of any plan is whether it has been properly costed and sources of financing worked out. The extent to which a plan influences future spending decisions is the core of development planning. Literature suggests that financing is the weakest part of many development plans. Considering the high risks and uncertainties in external financing, attracting non-debt-creating financing flows is more desired (Box 5.1).

Box 5.1
New Financing Sources

Green Bonds

Green bonds are one of the largest recent innovations in financing environmentally-friendly investments. These include clean transportation, energy efficiency, sustainable energy investments, waste management and climate change adaptation. The energy sector attracted 41% of bonds in 2016 followed by energy efficiency (27%) and transport (9%). The Climate Bonds Initiative estimates that bonds explicitly labelled as 'green' which earmark 100% of their proceeds to a specific environmental purpose exceeded USD 118 billion in 2016. Issuers of bonds can be supranational institutions (such as multilateral development banks), public entities (municipal, state or federal) or private companies. Several large emerging economies such as Brazil, China, India, Mexico and South Africa have built dynamic green bond markets at the domestic level over recent years. More recently, Seychelles has become the first country to issue a 'blue' bond. Modelled on green bonds, proceeds from the first-ever blue bond issuance will be channelled to investments in marine protected areas, sustainable fisheries development and management in Seychelles.

Sustainable Development Bonds

The sustainable development bonds and green bonds are both similar. These are World Bank bonds and raise funds from investors in the bond markets to support the financing of projects in developing countries. Green bonds communicate to investors the positive impact that the World Bank's loans make on climate mitigation and adaptation projects. Sustainable development bonds on the other hand communicate the positive impact of the World Bank's full range of sectors and project lending including climate considerations. The World Bank's reporting connects the lending activities to the SDGs and this is important for the investors who use SDGs to report to their stakeholders.

Both these bonds support the funding of projects and programmes in developing economies

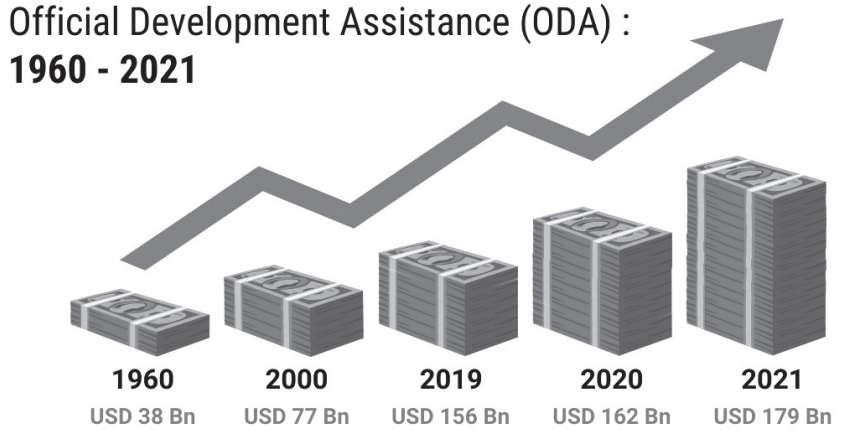
as they integrate climate considerations into their development to build greener, more sustainable economies.

Sources: World Bank. (2021). *What You Need to Know About IFC's Green Bonds.* Retrieved March 10, 2022, from World Bank: https://www.worldbank.org/en/news/feature/2021/12/08/what-you-need-to-know-about-ifc-s-green-bonds

World Bank. (2021). *What You Need to Know About Sustainable Development Bonds.* Retrieved March 10, 2022, from World Bank: https://www.worldbank.org/en/news/feature/2021/09/28/what-you-need-to-know-about-sustainable-development-bonds

With only eight years left to achieve the 2030 Agenda, financing for SDGs is of utmost importance. This involves consideration of fiscal policy and governance to support the SDGs, as well as foreign investments for the mobilisation of significant capital investments. The realisation of the 2030 Agenda requires enormous investment from public and private sources. Developing countries were progressing slowly on delivering SDGs mainly due to limited financial resource availability. These prevailing conditions have been further worsened due to the unprecedented COVID-19 pandemic.

Official Development Assistance (ODA) from donors rose to United States Dollars (USD) 179 billion (Bn) in 2021, up 44% from 2020 (see infographic). This includes USD 6.3 Bn for providing COVID-19 vaccines (3.5% of total ODA) and USD 18.8 Bn of humanitarian aid (10.5% of total ODA). The 2021 ODA total is equivalent to 0.33% of the Organisation for Economic Co-operation and Development's (OECD) Development Assistance Committee (DAC) donors' combined Gross National Income (GNI), which is still below the UN target of 0.7%. Simultaneously, financing for SDGs is more challenging for developing countries in dire need of meeting the rising demand for emergency public health and other public goods expenditures, especially essentials. The prospects for success in the 2030 Agenda depend on the response and recovery strategies of respective governments. Henceforth, improved resource-use efficiency, the development of innovative financing approaches and strong partnerships are encouraged.



Source: Official Development Assistance (ODA) Data, Organization for Economic Co-operation and Development (OECD), (2022).

The additional annual expenditure requirement in 2030 to reach key SDGs for emerging market economies is 4% of gross domestic product (GDP), which is as high as 15% of GDP for low-income developing countries.

Countries with better fiscal positions or those with greater accumulated assets can employ additional financial resources to support sustainable development and socioeconomic resilience. According to the IMF, the additional annual expenditure requirement in 2030 to reach key SDGs for emerging market economies is 4% of gross domestic product (GDP) and this value is as high as 15% of GDP for low-income developing countries.

The investment requirements for the SDGs were first assessed in the United Nations Conference on Trade and Development's (UNCTAD) World Investment Report in 2014 and then validated in 2020. Accordingly, the projected annual investment gap of SDGs for developing countries is USD 2.5 trillion. The assessment of SDG financing and investment needs primarily focuses on areas such as the efforts in domestic resource mobilisation, guiding private sector investment and mainstreaming the SDGs into national and international investment policies. Raising domestic revenue is a key concern for any government as it reduces the dependency on foreign assistance. The role of private sector investment and coherence between policy and practice are some other criteria that need to be addressed for the successful implementation of SDGs.

5.3 Sri Lanka's Planning Orientation in the Public Investment Programme

Since 2015, when Sri Lanka became a signatory to the 2030 Agenda, two PIPs have been published, i.e. PIP 2017-2020 and PIP 2021-2024. In general, the PIP frames national and regional development priorities and presents the government's public investment plan for the medium term. The PIP is structured into 26 strategic sectors as shown in Table 5.1, each containing a sectoral overview, policy direction, key strategies, targets and public investment for priority projects/programmes. The PIPs are prepared following a wide consultative process of various stakeholders including line ministries, academia, and the private sector.

Table 5.1
Public Investment Programme (PIP) 2017-2020 and 2021-2024

As a % of total investment

Sector	PIP 2017-2020			PIP 2021-2024		
	2017	2020	Average 2017/2020	2021	2024	Average 2021/2024
Social Infrastructure	**21.7**	**14.8**	**16.7**	**17.2**	**17.6**	**17.7**
01. Education	6.7	7.0	6.8	2.3	2.2	2.0
02. Higher education	2.6	2.7	2.6	1.8	3.1	3.1
03. Skills education	1.4	1.2	1.3	0.8	1.6	1.4
04. Labour	0.5	0.4	0.5	0.2	0.1	0.1
05. Health	6.1	6.4	6.2	8.0	8.1	8.5
06. Sports	0.6	0.5	0.5	1.2	0.7	0.8
07. Culture & heritage	0.4	0.4	0.4	0.3	0.3	0.3
08. Technology & ICT	3.3	2.1	2.4	2.6	1.4	1.4
Agriculture	**7.49**	**4.74**	**5.6**	**4.2**	**4.8**	**5.2**
09. Agriculture	1.6	1.7	1.6	2.2	2.5	2.7
10. Livestock	0.9	0.7	1.0	0.3	0.5	0.5
11. Plantation	1.2	1.2	1.2	0.6	0.7	0.8
12. Fisheries	0.9	0.9	0.9	0.6	0.7	0.8
13. Land	0.5	0.5	0.5	0.4	0.6	0.5
14. Industry/trade/ tourism	**3.0**	**2.4**	**2.6**	**2.0**	**1.9**	**2.1**
Commercial Infrastructure	**37.9**	**31.1**	**32.1**	**59.8**	**61.9**	**60.2**
15. Roads	16.4	23.2	19.6	35	32.7	29.7
16. Transport	4.9	5.1	5.0	4.3	5.6	6.5
17. Ports & aviation	0.2	0.3	0.3	0.2	0.0	0.3
18. Power & energy	0.1	0.2	0.2	0.1	0.1	0.1
19. Irrigation	9.5	8.9	9.4	4.7	5.7	6.0
20. Water supply & sewerage	3.8	4.3	4.3	10.3	13.6	12.8
21. Housing	1.0	1.1	1.1	1.6	1.5	1.6
22. Urban development	1.9	1.9	1.9	3.6	2.7	3.1
23. Governance	**10.2**	**8.9**	**9.7**	**7.2**	**6.1**	**7.5**
24. Environment	**1.3**	**1.3**	**1.3**	**1.0**	**0.6**	**0.5**
25. Social protection	**2.0**	**0.7**	**1.2**	**1.6**	**1.1**	**1.3**
26. Regional development	**9.7**	**8.3**	**8.8**	**7.0**	**6.0**	**5.5**

Note: Author's calculation based on PIP 2017-2020 and 2021-2024.

Source: Based on data from the Department of National Planning, PIP 2017-2020, 2021-2024.

Figure 5.1: Public Investment Allocation

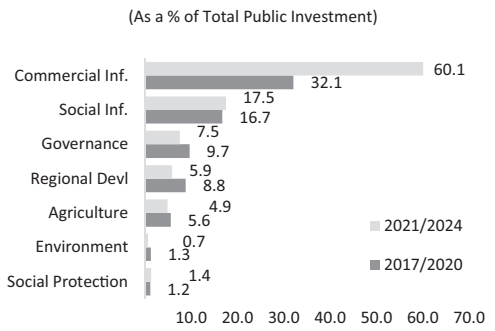


Figure 5.2: Public Investment for Roads

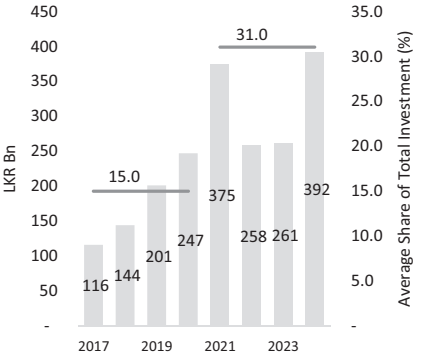


Figure 5.3: Public Investment for Education

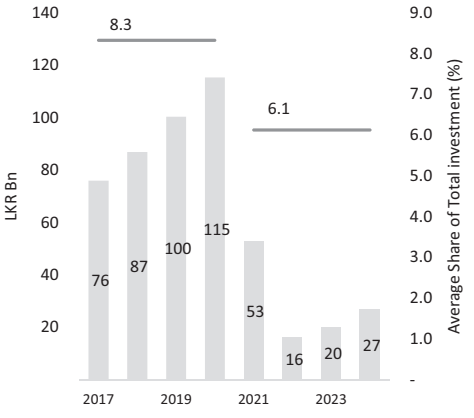
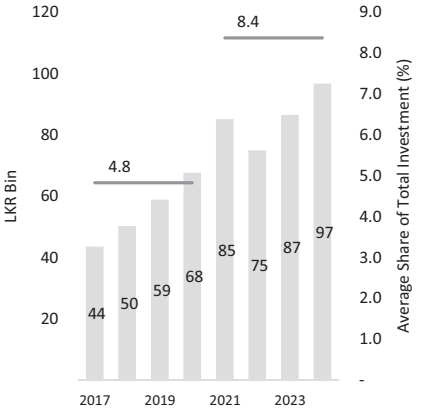


Figure 5.4: Public Investment for Health



Source: Based on data from the Department of National Planning, PIP 2017-2020, 2021-2024.

The national development framework must provide a framework to address a country's economic challenges. It should present the vision for sustained and healthy economic development based on a marked improvement in quality and efficiency.[9] However, the degree to which the recently published PIPs cater to this expected change in economic development is questionable. A discrepancy is evident in the government's fiscal strategy and the sectoral allocations. Figure 5.1 indicates that approximately 60% of public investment has been allocated to the commercial infrastructure sector while only the balance is shared among 18 other sectors in the PIP 2021-2024. On average, the public investment allocation for the commercial infrastructure sector has surged by 67% (from LKR 372 Bn in PIP 2017-2020 to LKR 620 Bn in PIP 2021-2024). For the road sector alone, public investment between the two PIPs surged by 82% (Figure

9 Zhongming, Z., Linong, L., Xiaona, Y., Wangqiang, Z., & Wei, L. (2021). *The 14th Five-Year Plan of the People's Republic of China-Fostering High-Quality Development.* Manila: Asian Development Bank.

5.2). The allocations to social infrastructure and environment sectors are minimal. The general education sector which received around 7% of total public investment in PIP 2017-2020, declined sharply to 2% in PIP 2021-2024. Similarly, allocations to the environment sector more than halved from 1.3% of total investment in PIP 2017-2020 to 0.5% in PIP 2021-2024.

These allocations highlight the mismatch between development policy and investment planning. For instance, although the 'Vistas of Prosperity and Splendour', the policy framework of the government during 2020-2021 envisioned "human resources as the foundation for creating a prosperous country", public investment in education (general education, higher education and skills education) shows a sharp decline (by 26%) from 8.3% in PIP 2017-2020 to 6.1% in PIP 2021-2024 (Figure 5.3). Furthermore, as emphasised by the national policy, the 'creation of a tech-savvy digital economy' is compromised given a 31% decline in public investment for the information and communications technology (ICT) sector between PIP 2017-2020 and 2021-2024. Therefore, a gap between the government's development policies and development planning is witnessed. However, in response to the COVID-19 pandemic, PIP 2021-2024 has historically allocated the highest investment of 8.5% of total investment to the health sector (Figure 5.4). This suggests that PIPs should address not only the recurring domestic development priorities, but also emerging global development challenges.

5.4 Sri Lanka's SDG Performance

Sri Lanka's performance in achieving SDGs is better relative to the South Asian region (Table 5.2). However, its performance is not so commendable in comparison to most of the emerging economies in East Asia. The actions of a country can have positive or negative effects on the ability of other countries to achieve SDGs. The Spillover Index assesses such effects along three dimensions: environmental and social impacts embodied in trade, economy and finance, and security. A higher score means that a country causes more positive and fewer negative spillover effects. The Spillover Index of rich countries suggests that

Sri Lanka's performance in achieving SDGs is better than the South Asian region, second only to the Maldives. However, its performance is not so commendable in comparison to most of the emerging economies in East Asia.

they generate more negative socioeconomic and environmental spillovers which could undermine other developing countries' ability to achieve the SDGs. Hence, the spillover index is indicative of the need for transformed global North-South relationships. For instance, considering the environmental destruction caused by advanced economies during the industrialisation era, developing economies should be reinforced favourably in adopting climate change mitigation and adaptation initiatives. In addition, developing economies scoring high in the spillover index

Table 5.2
Sri Lanka's SDGs Performance

Country	SDG Index[a] 2021	Spillover Index[b] 2021	GDP Per Capita (Constant, 2015 USD)	Human Development Index 2020	World Happiness Index 2022
Global Top Five Countries					
Finland	1	69.8	44,751	11	1
Sweden	2	67.1	51,540	7	7
Denmark	3	60.5	56,202	10	2
Germany	4	60.4	41,259	6	14
Belgium	5	62	40,382	14	19
East Asia					
China	57	94.62	10,370	85	72
Indonesia	97	96.87	3,757	107	87
Malaysia	65	77.77	10,631	62	70
Philippines	103	97.92	3,270	107	60
Thailand	43	88.68	6,198	79	61
Vietnam	51	96.37	2,656	117	77
South Asia					
Afghanistan	137	99.3	530	169	146
Bangladesh	109	99.3	1,644	133	94
Bhutan	75	93.9	2,880	129	-
India	120	98.9	1,812	131	136
Maldives	79	88.3	6,660	95	-
Nepal	96	99.2	1,028	142	84
Pakistan	129	99.7	1,447	154	121
Sri Lanka	87	96.4	4,053	72	127

Notes: a SDG Index provides countries' current performance and trends on the 17 SDGs.
b Spillover Index assesses spillovers (country actions that make positive or negative effects on other countries' ability to achieve SDGs) along three dimensions: environments and social impacts embodied in trade, economy and finance and security. A higher score means that a country causes more positive and fewer negative spillover effects.

Sources: Based on World Development Indicators, World Bank: World Happiness Report 2021.

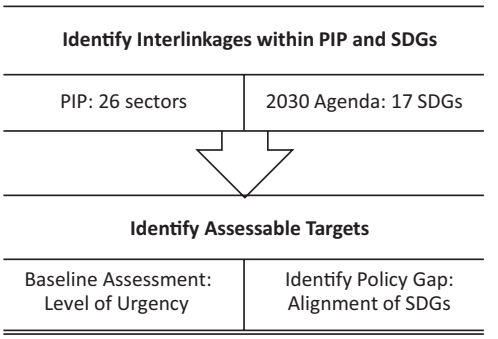
are not guaranteed their well-being or the achievement of SDGs. In other words, though the development trajectory of developing nations may not repeat the environmental destruction that occurred during the industrial revolution, it does not make them prosperous nations either.

Since the adoption of the 2030 Agenda, Sri Lanka has taken several steps to integrate it into the national development framework. These include the enactment of the Sustainable Development Act No. 19 of 2017 to provide the legal framework for implementing the SDGs; the establishment of a dedicated ministry for sustainable development, and the establishment of a Sustainable Development Council (SDC) as the national focal point to facilitate the achievement of SDGs; and the establishment of a Parliamentary Select Committee for Sustainable Development to provide political leadership for implementation of the SDGs.

5.5 Effectively Mainstreaming SDGs into National Development Planning

In this section, the effectiveness of SDG mainstreaming into national development planning is examined by evaluating the progress and priorities of SDGs in the PIP 2021-2024. The identification of interlinkages is one of the key factors for successful integration. Therefore, as the first step, the presence of interlinkages between the PIP strategic sectors and SDGs is examined (Figure 5.5).[10] Second, the SDG targets to be assessed are identified following a method used in assessing Canada's domestic status on the SDGs.[11] Finally, a modified approach of a multi-criteria analysis is used to understand the level of urgency and alignment of SDGs.[12]

Figure 5.5
Research Framework



Sources: Interlinkages between PIP and SDGs were identified by following Cutter et al. (2015). Assessable targets were identified by McArthur & Rasmussen (2017). The modified multi-criteria approach of Allen et al. (2019) was employed to assess the level of urgency and alignment of SDG targets to the PIP.

5.5.1 Identifying Interlinkages in PIP and SDGs

As seen in Table 5.3, SDG 1 on poverty eradication and SDG 12 on sustainable consumption and production have the most interlinkages (22 each) with PIP sectors. This is acceptable considering

[10] Based on Cutter, A., Osborn, D., Romano, J., & Ullah, F. (2015). Sustainable Development Goals and Integration: Achieving a Better Balance Between the Economic, Social and Environmental Dimensions. *Stakeholder Forum.* Berlin: German Council for Sustainable Development.

[11] See Mcarthur, J.W., & Rasmussen, K. (2017). Who and What Gets Left Behind? Assessing Canada's Domestic Status on the Sustainable Development Goals. *Global Economy and Development Working Paper, 108,* 1-58.

[12] Based on Allen, C., Metternicht, G., & Wiedmann, T. (2019). Prioritising SDG Targets: Assessing Baselines, gaps and Interlinkages. *Sustainability Science, 14*(2), 421-438.

the cross-cutting and multidimensional nature of SDG 1 and SDG 12. In contrast, SDG 2 on zero hunger and SDG 10 on inequality have the fewest interlinkages, with only two and three linkages respectively. However, this does not necessarily suggest that a goal is less well-designed or less important. This exercise highlights the additional attention required in understanding the interlinkages to improve the mainstreaming process.

Table 5.3
Overview of Interlinkages within PIP and SDGs

PIP Sectors		Applicable SDGs
Social Infrastructure		
1.	Education	
2.	Higher education	1, 8, 12, 13, 16
3.	Skills education	
4.	Labour	1
5.	Health	1, 5, 6, 11, 12,16
6.	Sports	
7.	Culture & heritage	11
8.	Technology & ICT	
	Agriculture	
9.	Agriculture	
10.	Livestock	
11.	Plantation	1, 3, 4, 6, 7, 8, 9, 12, 13, 14, 15
12.	Fisheries	
13.	Land	
14.	**Industry/trade/tourism**	1, 4, 5, 7, 9, 10, 12, 14, 16
	Commercial Infrastructure	
15.	Roads	
16.	Transport	
17.	Ports & aviation	1, 6, 7, 9, 11, 12, 13
18.	Power & energy	
19.	Irrigation	
20.	Water supply & sewerage	1, 3, 6, 7, 9, 11, 12, 13, 15
21.	Housing	1, 6, 7, 9, 11, 12, 13
22.	Urban development	1, 3, 6, 7, 9, 11, 12, 13, 16
23.	**Governance**	3, 4, 5, 8, 9, 11,12,13,16
24.	**Environment**	1, 2, 6, 8, 9, 11, 12, 14, 15
25.	**Social protection**	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 16
26.	**Regional development**	1

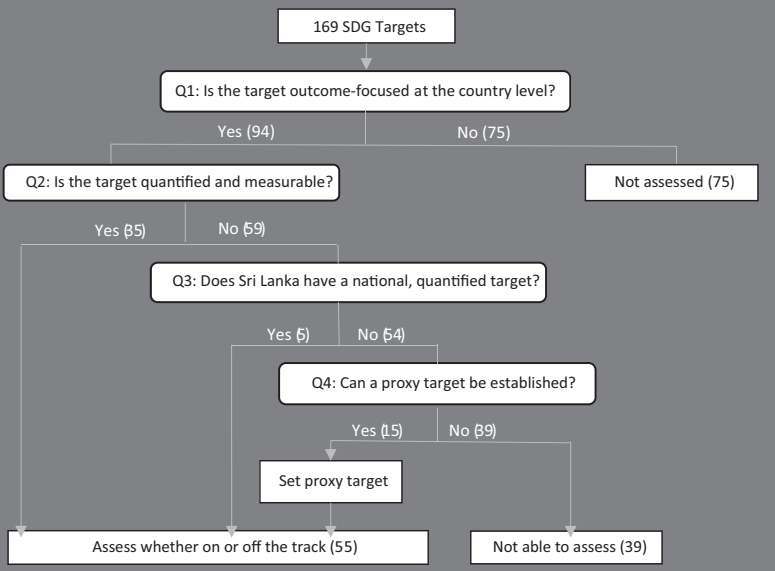
Source: Interlinkages within PIP strategic sectors and SDGs were identified following Cutter et al. (2015).

Box 5.2
Identifying Assessable Outcome Targets

The identification of assessable targets considers whether the targets are outcome-focused, conceptually relevant to Sri Lanka, and adequately quantified and measurable to be 'assessable' through either the formal SDG framework or a reasonable proxy measure. The identification was conducted using the baseline data of the Department of Census and Statistics (DCS) as the default and supplemented with UN-SDG statistical database where needed.[13] A logic tree below outlines the sequence of questions implemented to identify assessable, country-level outcome targets.

First, screening follows the question 'whether the target is outcome-focused or not at the country level'. Henceforth, all the 'lettered' targets and SDG 17 are omitted. The second is to examine 'whether the targets are quantified and measurable?'. If data for a particular indicator is directly available via the DCS website, this is identified as a measurable target. For the targets, where DCS does not directly compile data, an expansive approach used by Canada has been followed. Thus, for five SDG targets, an existing national target is used to serve as a substitute. For all the other SDG targets, a proxy target is set considering the ability of the DCS to compile the data by adding new modules into existing censuses and surveys, etc.[14] This provides a total of 55 quantitatively assessable outcome SDG targets for Sri Lanka.

Logic Tree for Identifying Assessable Domestic SDG Targets in Sri Lanka



[13] Department of Census and Statistics. (2017). *Sustainable Development Goals in Sri Lanka: DCS Baseline Data.* Retrieved April 15, 2022, from Department of Census and Statistics: http://www.statistics.gov.lk/sdg/index.php/sdg/page/Tables.

[14] Department of Census and Statistics. (2017). *Status of Sustainable Development Goals Indicators in Sri Lanka: 2017.* Battaramulla: Department of Census and Statistics.

5.5.2 Two-Criteria Analysis: Baseline Assessment and SDGs Alignment

The two-criteria analysis is performed only for 35 SDG indicators where data are directly available via the DCS website.

Criteria 1: The baseline assessment is aimed at evaluating the level of urgency of each category by recognising the presence and favourability of historic trends. If the trend is improving, it is a 'favourable trend', otherwise, it is an 'unfavourable trend', and when there is no data or no trend a 'mixed assessment' is indicated (Table 5.4).

Criteria 2: This involves the identification of policy gaps to assess the alignment of SDG targets with the existing targets in 26 PIP strategic sectors. Thereafter, the degree of coverage of each SDG target is appraised and categorised into one of three categories (Table 5.4). The coverage of each SDG target is then assessed considering the coverage of the intent and scope of the SDG target and the coverage of the SDG indicator considering the availability of baseline value and clear target values.

The results from the baseline assessment and policy gap or the SDG alignment with PIP for the 35 quantifiable targets are provided in Table 5.5 (a graphical representation of the same in Figures 5.6a, 5.6b and 5.6c). The two-criteria assessment integrates results from two different assessments. The higher the total score, the higher the comparative priority of the SDG target. Considering a total score of 3(three) as the benchmark, it can be seen that nearly 80% of the quantifiable SDG targets (with a total score >3) are recognised as a priority either because of an unfavourable trend or less coverage in PIP 2021-2024.

Overall, the eight SDG targets assessed as being of greatest urgency include 3.6 (death rate due to road accidents), 3.8 (expenditure on health), 8.1 (real GDP per capita growth), 8.2 (real GDP growth

Table 5.4
Categories to Assess the Level of Urgency and Alignment of SDGs

Category	Score	Rule Applied
Categories to assess the level of urgency		
Most urgent	3	Unfavourable trend
Moderately urgent	2	Mixed assessment: No data or no trend
Least urgent	1	Favourable trend
Categories to assess the alignment of SDGs to identify policy gaps		
Very limited coverage or not addressed	2	
Partial coverage	1	
Good coverage	0	

Notes: A modified approach of the multi-criteria analysis proposed by Allen et al. (2019) was used to understand the level of urgency and the alignment of SDGs to PIP of the SDG targets.

Source: Allen, C., Metternicht, G., & Wiedmann, T. (2019). Prioritising SDG Targets: Assessing Baselines, gaps and Interlinkages. *Sustainability Science, 14(2), 421-438.*

Table 5.5
Summary of the Baseline Assessment and SDG Alignment

Total Score	SDG Targets	Total No. of Targets	Contribution to Total (%)
1 (Low priority)	3.1, 3.2, 3.4, 6.1	4	11
2	1.1, 2.2, 3.7	3	9
3	1.2, 1.3, 2.1, 5.3, 7.1, 8.5, 8.6, 9.1, 10.4, 16.1	10	29
4	3.8, 4.2, 4.4, 5.1, 5.2, 5.5, 8.7, 10.1, 11.1. 16.2, 16.4	11	31
5 (High priority)	3.6, 8.1, 8.2, 9.2, 9.3, 10.2, 16.3	7	20
	Total	**35**	**100**

Notes: Total Score: Provides the combined total of Criteria 1 and Criteria 2. The higher the total score, the higher the comparative priority of the SDG target. A total of 35 SDG targets are the only quantifiable targets for which data are readily available on the DCS website (once the lettered and 17 SDG targets are removed).

Criteria 1: Gives the 'level of urgency' and it is assessed using three rules: 3-more urgent/unfavourable trend; 2-moderately urgent; 1-less urgent/favourable trend.

Criteria 2: Gives the 'alignment of SDGs or policy gap' and the scores are given considering the level of SDG target coverage in the PIP: 2-very limited coverage/not addressed; 1-partial coverage; 0-good coverage.

Sources: Cutter, A., Osborn, D., Romano, J., & Ullah, F. (2015). Sustainable Development Goals and Integration: Achieving a Better Balance Between the Economic, Social and Environmental Dimensions. Stakeholder Forum. Berlin: German Council for Sustainable Development.

Mcarthur, J.W., & Rasmussen, K. (2017). Who and What Gets Left Behind? Assessing Canada's Domestic Status on the Sustainable Development Goals. Global Economy and Development Working Paper, 108, 1-58.

Allen, C., Metternicht, G., & Wiedmann, T. (2019). Prioritising SDG Targets: Assessing Baselines, gaps and Interlinkages. Sustainability Science, 14(2), 421-438.

per employed person), 9.2 (manufacturing value-added), 9.3 (proportion of small-scale industries), 10.2 (people living below 50% of median income) and 16.3 (unsentenced detainees).

The total assessable 35 targets are the ones that are quantifiable and data readily available on the DCS website. As 134 targets remain, this assessment does not provide a comprehensive assessment of all the SDG targets. However, 29 other indicators could be compiled by the DCS by adding new modules into ongoing censuses and surveys or through new surveys and special studies. Another 131 indicators are to be compiled by other institutions. Thereafter, only 38 indicators remain as problematic in data compilation using domestic means. Hence, it is important to provide developing countries with the necessary technical assistance in data compilation and management.

As the above assessment is based only on the quantifiable targets, a simple content analysis using key search terms (phrases/words) in national plans suggested by Chimhowu et al., (2019) is undertaken for the entirety. Development plans include common elements with some regional variations. All plans, including those of Sri Lanka, contain a major focus on economic growth and less emphasis on sustainability. Compared to PIP 2017-2020, no significant

improvement is to be shown in the localisation of SDGs in PIP 2021-2024 (Table 5.6). However, the assessment made in the sectoral review on 'water supply and sanitation' in the PIP 2021-2024 is a good example of SDGs alignment into national-level development planning which could be replicated in all other SDGs/sectors. For instance, it contains a separate section on the 'pathway for realising SDGs', whereby the policy direction, achievements and government interventions in realising SDG 6 on clean water and sanitation for all are presented. Such a synopsis provides clearer guidance on future development interventions that can ensure access to safe drinking water and sanitation in the country.

Indicator-based assessments are widely used in SDG mainstreaming. These assessments can be used to identify which targets need more urgent attention in mainstreaming. However, the indicator-based assessment has its demerits; gaps in data and the use of alternative indicators and proxy indicators could result in higher or lower prioritisation of targets. Defining a benchmark is challenging for most developing economies. Interpreting SDG targets as appropriate to national, regional and global contexts is controversial due to knowledge gaps. Therefore, looking at targets and indicators in unison is encouraged. Without clear national targets, it is impossible to ensure SDG achievement and

Figure 5.6
Synopsis of Baseline Assessment and SDGs Alignment

Figure 5.6a: Criteria 1: Baseline Assessment on Level of Urgency

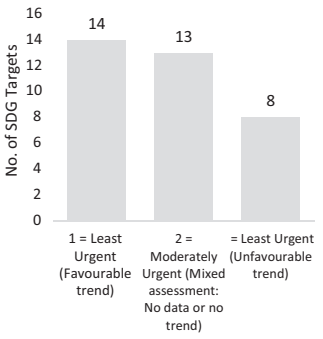


Figure 5.6b: Criteria 2: Assessment of SDGs Alignment to PIP

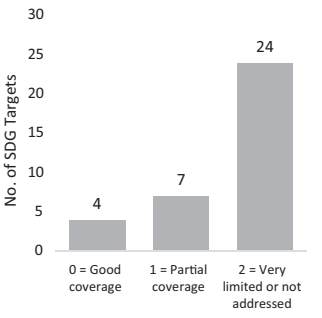
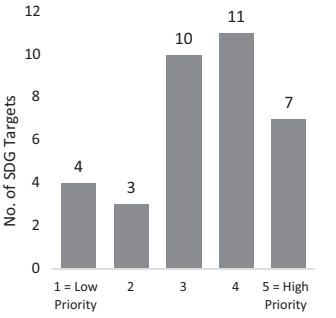


Figure 5.6c: Combined Scores of Criteria 1 & Criteria 2



Notes: Criteria 1 indicates the SDG targets categorised based on the 'level of urgency' and it is assessed using three rules: 3-more urgent/unfavourable trend; 2-moderately urgent; 1-less urgent/favourable trend. Criteria 2 indicates the SDG targets categorised based on the 'alignment of SDGs or policy gaps' and the scores are given considering the level of SDG target coverage in the PIP: 2-very limited coverage/not addressed; 1-partial coverage; 0-good coverage. The total score provides the combined score of Criteria 1 and Criteria 2. The higher the total score, the higher the comparative priority of the SDG target. A total of 35 SDG targets are the only quantifiable targets for which data are readily available on the DCS website.

Sources: Cutter, A., Osborn, D., Romano, J., & Ullah, F. (2015). Sustainable Development Goals and Integration: Achieving a Better Balance Between the Economic, Social and Environmental Dimensions. Stakeholder Forum. Berlin: German Council for Sustainable Development.

Mcarthur, J.W., & Rasmussen, K. (2017). Who and What Gets Left Behind? Assessing Canada's Domestic Status on the Sustainable Development Goals. *Global Economy and Development Working Paper,* 108, 1-58.

Allen, C., Metternicht, G., & Wiedmann, T. (2019). Prioritising SDG Targets: Assessing Baselines, Gaps and Interlinkages. *Sustainability Science, 14*(2), 421-438.

Table 5.6
Analysis of Key Phrases/Words Used in National Plans

Region	Economic Growth	Capacity Development/ Building	Sustainable Growth/ Development	SDGs
Sub-Saharan Africa (36)[a]	1,335	1,606	531	100
Asia (14)[a]	430	432	188	24
Europe (20)[a]	644	210	284	18
The Middle East and North Africa (13)[a]	195	265	557	56
Latin America (24)[a]	361	656	434	3
USSR[a]	2	7	2	0
Sri Lanka: PIP 2017-2020[b]	23	7	9	10
Sri Lanka: PIP 2021-2024[b]	17	28	12	15

Notes: a: Number of countries in parenthesis.
b: Author's compilation based on data from PIP 2021-2024 and 2017-2020.

Source: Chimhowu, A. O., Hulme, D., & Munro, L. T. (2019). The 'New' National Development Planning and Global Development Goals: Processes and Partnerships. World Development, 120, 76-89.

hence the use of regional or global averages as benchmarks is encouraged in target setting.

New techniques such as systems analysis and network analysis could be used effectively in assessing interlinkages to support the integration process. The gap analysis is a common approach used by countries to support the prioritisation of SDGs. It systematically maps the SDGs to existing national development priorities. This approach is useful in highlighting the potential gaps in existing strategies.

5.6 Conclusions and Policy Implications

The economic and financial crises faced by Sri Lanka have impeded decades of development outcomes. In this context, the country needs to be meticulously watchful on its assessments and efforts in development planning for the future. The SDGs are a valuable platform on which to rebuild Sri Lanka's development legacy.

Evidence-based decision-making, policy coherence for sustainable development and budgeting for the SDGs are some of the approaches governments can deploy in strengthening their national planning processes. This allows for less complex bureaucracies and traditional state-led development. The SDGs support better technical analysis for public decision-making and facilitate the need for reliable data to facilitate robust decision-making, especially in developing countries. Additionally, new tools/models have also emerged to assess coherence across policies, programmes and budgets to promote synergies, address trade-offs, and provide a broader scope for development and implementation.

The complex and integrated nature of the SDGs has brought forth many tools to facilitate the mainstreaming process. For example, the Integrated Sustainable Development Goals (iSDG) Model is a comprehensive policy simulation tool that generates country-specific development scenarios to show the implications of policy on a country's progress towards achieving the SDGs. It is intended to help policymakers understand the interlinked SDG system and design efficient pathways to meet the 2030 Agenda. The model provides a platform to conduct an on-the-spot simulation of a broad variety of policies simultaneously and to assess their positive and negative synergies, and trade-offs. The model covers all the 17 SDGs and can be calibrated for any country or region with data sourced locally or from international databases. Therefore, the national planning process could be further improved by using sophisticated tools of this nature to facilitate informed decision-making.

In the case of Sri Lanka, the assessment of national progress of SDG mainstreaming by using baseline data of 35 SDG indicators suggests only 20% alignment of SDGs in the most recently published PIP 2021-2024. Despite the necessary legal and institutional setting to implement SDGs being established, horizontal accountability between various institutions remains very limited. Whilst the Ministry of Finance is the apex body that directs the implementation of a national development policy framework, when the 'sustainability element' or the 'SDGs' are handled separately, the effectiveness in decision-making can be compromised. Furthermore, duplication of agencies leads to inefficiencies, a serious matter of concern for small economies like Sri Lanka. For Sri Lanka, better coordination between various institutions responsible for national planning, budgeting, monitoring and evaluation and implementation is vital.

Reliable data is lacking as well. Most of the assessed strategies and targets in the PIP lacked clear numerical target values and this limits the monitoring and follow-up. The DCS is the national data repository of Sri Lanka, however, they do not compile all SDG-related data. Moreover, certain SDGs require data to be compiled by other institutions mainly due to staff and other resources being limited. According to the DCS, out of the total 244 indicators, over 50% of indicators are to be compiled by other institutions. Hence, strengthening technical competency in data sharing, management and analysis should be supported to improve development planning, monitoring, and evaluation to achieve the 2030 Agenda.

On average, the public investment allocation sits at 5.4% of the GDP for Sri Lanka during the past two decades. Although Sri Lanka's Voluntary National Review 2018 has identified the need for increased financing for SDG implementation, no such comprehensive assessment has been carried out on the investment requirements of SDGs so far. Given the current economic downturn, allocating sufficient investments for SDGs is a daunting task. However, as countries have already pledged to achieve the SDGs by 2030, Sri Lanka too needs to introduce necessary policy reforms to make this initiative a reality. Furthermore, the PIP needs to provide and create the grounds for innovative international financing.

The timely achievement of the 2030 Agenda hinges on the success of the mainstreaming strategy or how effectively the SDGs are incorporated into national development frameworks. The existence of a strong national development framework, allocation of resources, absence of systemic barriers, and involvement of diverse stakeholders are critical in the mainstreaming process.

6. Improving Access to Decent Work

6.1 Introduction

Promoting access to decent work brings many merits. It reduces inequality, decreases vulnerabilities, promotes human dignity, and facilitates sustained economic growth and development. In many developed countries, wage income constitutes a major part of household income. Inequality in wage income, therefore, will lead to inequality in household income while lack of wage income will result in poverty. Access to decent work ensures access to adequate incomes, social protection, non-discrimination at work, and the ability of workers to voice their opinion. Moreover, it will increase aggregate demand as the poor will use increased income to purchase goods. In such an environment, workers do not need to depend on others for their essential needs and are treated equally and with respect at the workplace. Due to better access to social protection, they can cope and are resilient to adverse shocks without falling into poverty.

According to the Household Income and Expenditure Survey (HIES) 2019 conducted by the Department of Census and Statistics (DCS), a large share (62.3%) of household income in Sri Lanka was earned income. Of this, 37.5% was from wages and salaries, 18.1% was from non-agricultural activities while the remaining 6.7% was from agricultural activities. This signifies the importance of access to decent work for reducing income inequality in Sri Lanka. In a severe economic setback, issues like income inequality are likely get sidelined and receive less attention, amidst other priorities. As such, the current economic crisis highlights the importance of adequate wages and social security for withstanding adverse economic shocks. The consequences of the coronavirus (COVID-19) pandemic showed that informal workers were the most affected by adverse economic shocks.[1] In addition, it is harder to target those in the unorganised informal sector for providing relief, as policymakers have little or zero information on who they are and their needs.

The Decent Work Agenda was launched by the International Labour Organization (ILO) in 1999 with the primary goal of promoting "opportunities for women and men to obtain decent and productive work, in conditions of freedom, equality, security and human dignity". The Decent Work Agenda provides a feasible solution to the problem of growth being exclusive (as opposed to inclusive), as improving access to decent work too will ensure access to adequate wages, social security, and safeguard human rights. Decent work is a critical component of Goal 8 of the 2030 Agenda on Sustainable Development Goals (SDGs), which encourages

[1] Institute of Policy Studies of Sri Lanka. (2021). Pandemic and the New Normal: Sri Lanka's Labour Market in *Sri Lanka State of the Economy 2021.* Colombo: Institute of Policy Studies of Sri Lanka. pp. 109-130.

inclusive economic growth that is not harmful to the planet.[2] This agenda has four main pillars: employment creation, social protection, rights at work, and social dialogue.[3] Against this backdrop, this chapter will assess the gaps in access to decent work in Sri Lanka and suggest policy recommendations to overcome such disparities, mitigate the downside impacts of the current economic crisis and support recovery efforts.

6.2 Decent Work Context

Decent work is complex to measure as it encompasses diverse aspects of work including, full and productive employment, social protection, rights at work, and social dialogue. There is no easy measure for capturing all these dissimilar aspects in one indicator at present. Internationally, several proxy indicators are used to measure decent work. This section describes the decent work context in Sri Lanka using these diverse measures.

6.2.1 Trends in the Creation of Productive Employment Opportunities

Trends in Employment-intensive Growth

Goal 8 of the 2030 Agenda calls for the promotion of inclusive, and sustainable economic growth that supports full and productive decent work opportunities. The main means of achieving this goal is by investing in sectors that are more likely to create productive employment. Growth in such

Table 6.1
Trends in Arc Elasticity of Employment, by Major Industry

	2012-2014	2015-2017	2018-2020
	Employment growth		
Agriculture	-4.9	-4.7	6.2
Industry	4.4	15.5	-3.8
Services	7.2	4.7	-1.5
	GDP growth by sector[a]		
Agriculture	8.0	-4.1	-1.5
Industry	9.0	10.7	-4.5
Services	8.8	8.6	0.7
	Arc elasticity of employment[b]		
Agriculture	-0.62	1.14	-4.23
Industry	0.49	1.46	0.86
Services	0.82	0.55	-2.04

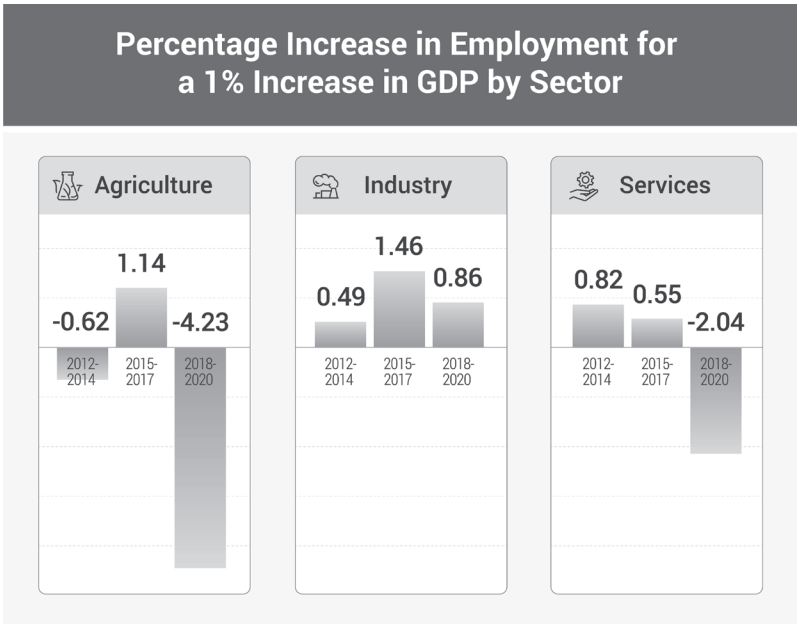
Note: a. Growth in real GDP (2010 constant prices).
b. Sectors showing positive productivity growth are indicated in bold.

Source: Authors' calculations based on Annual Report 2020, Ministry of Finance, Sri Lanka, Colombo: Ministry of Finance.

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[2] Decent Work and Economic Growth. (n.d.). *Promoting Sustained Inclusive and Sustainable Economic Growth, Full and Productive Employment and Decent Work for All.* Retrieved May 10, 2022, from Global Goals: https://www.globalgoals.org/goals/8-decent-work-and-economic-growth/

[3] United Nations Economic and Social Commission. (2018). *Inequality of Opportunity in Asia and the Pacific - Decent Work.* Bangkok: United Nations Economic and Social Commission.



Note: A negative number indicates that either employment contracted when GDP grew (indicating productivity growth) or GDP contracted when employment grew (productivity decline). A positive number indicates that both employment and GDP both grew or contracted.

Source: Authors' calculations based on Annual Report 2020, Ministry of Finance, Sri Lanka.

sectors is more inclusive, as the benefits of growth are shared through employment income.

The arc elasticity of employment – the percentage increase in employment for a 1% increase in the gross domestic product (GDP) – provides a broad assessment of how employment expands relative to economic growth. Sectors that create more jobs while increasing productivity which expand access to higher-paying jobs, is one aspect of decent work. For productivity to increase while expanding employment opportunities, both employment and value addition in the sector must increase, and the growth in the latter must exceed the growth in the former. It must be noted that productivity can improve even when employment creation in the sector deteriorates. This can occur in two ways. One, if the sector grows while employment in the sector decreases, then there are fewer workers to benefit from the given sector whose contribution to the GDP is increasing. Two, if both value addition and employment in the sector decline, the decline in employment is larger than the decline in value addition.

Table 6.1 depicts the trends in arc elasticity of employment in the three major economic sectors in Sri Lanka during 2012-2020 in three-year intervals. These years are chosen as data for all districts are available for this period, as prior to 2012, data for the Northern and Eastern Provinces were not available and the latest available data is for 2020. In the 2012-2014 period, Sri Lanka experienced productivity growth in all three major industrial sectors. Further, employment grew in the industry and services sectors, indicating a positive outlook for the labour market during this period for non-agricultural sectors. During 2015-2017, the agriculture and services sectors experienced productivity growth, but this was accompanied by employment growth only in the services sector. This indicates that only the

services sector was contributing to employment with potential wage increases on average.

In the 2018-2020 period, only the services sector showed productivity growth, and unlike in the previous period, employment contracted by 1.5%.

In the 2018-2020 period, only the services sector showed productivity growth, and unlike in the previous period, employment contracted by 1.5%. It indicates a decrease in access to productive jobs in this period. The decline in labour market conditions was mainly due to the Easter Sunday bomb attacks in April 2019 followed by the COVID-19 pandemic, which saw economic conditions in the country deteriorate sharply. During this period, employment opportunities moved away from the industry and services sectors to the high labour-intensive agriculture sector. According to the Labour Force Survey (LFS) 2020 of the DCS, 91.4% of the agricultural workers are informal workers, who are not covered by social security.[4] Their average monthly earnings were lower than the earnings of workers in the industry and services sectors. This indicates that labour market conditions have regressed from the Decent Work Agenda with labour moving to the less productive and lower-paying agriculture sector, where most jobs are not covered by social security.

In 2020, the majority (about 46%) of employed were in the services sector, followed by agriculture (27.1%) and industry sectors (26.9%). Over the 2012 to 2020 period, the share of workers in the services and industry sectors has increased by three and one percentage points, respectively. This was at the expense of the agriculture sector where the share of workers has declined by four percentage points. As discussed earlier, investing in the more productive services sector is one means of achieving the Agenda for creating better jobs. However, the services sector is heterogeneous, covering various industries including, education, health, tourism, trade, etc. As such, a more detailed analysis is needed to assess growth and employment creation potential in different sectors to direct investments and devise policies. There is much potential to create productive jobs in the industry and agriculture sectors despite zero productivity growth reported in these sectors during the 2019-2020 period. As such, job creation in these sectors will need to be accompanied by investments in technology to support productivity growth so that any employment expansion is accompanied by a higher rate of growth.

Economic Crisis and Access to Jobs

As was evident during the COVID-19-related economic contraction, the current economic crisis, and economic downturns have setback progress in the Decent Work Agenda. According to the quarterly LFSs, during the height of the

[4] All labour market data in this section were drawn from, the Department of Census and Statistics. (2020). *Labour Force Survey.* Battaramulla: Department of Census and Statistics.

COVID-19 pandemic, from the first quarter (Q1) 2019 to Q1 2020, the number of total employed decreased by 162,524 and the number of unemployed increased by 83,388. Although the number of total employed grew almost to the 2019 levels by Q1 2021, the number of unemployed increased slightly from Q1 2020 to Q1 2021. This is partly because economic activities increased and some discouraged workers who left the labour market in 2020 rejoined during this period. With the economic crisis that started in 2022, and along with the foreign exchange crisis, the number of total employed is likely to further drop and the number of unemployed is likely to rise. The youth (28% for 15–24-year-olds and 13% for 25-29 year-olds), females (8.9%) and skilled workers (9%) had the highest unemployment rates in 2021. These groups are likely to continue to have high unemployment rates in 2022. The very high youth unemployment rate is of special concern given the history of youth unrest in the country.

Technological Development and Sustainable Job Creation

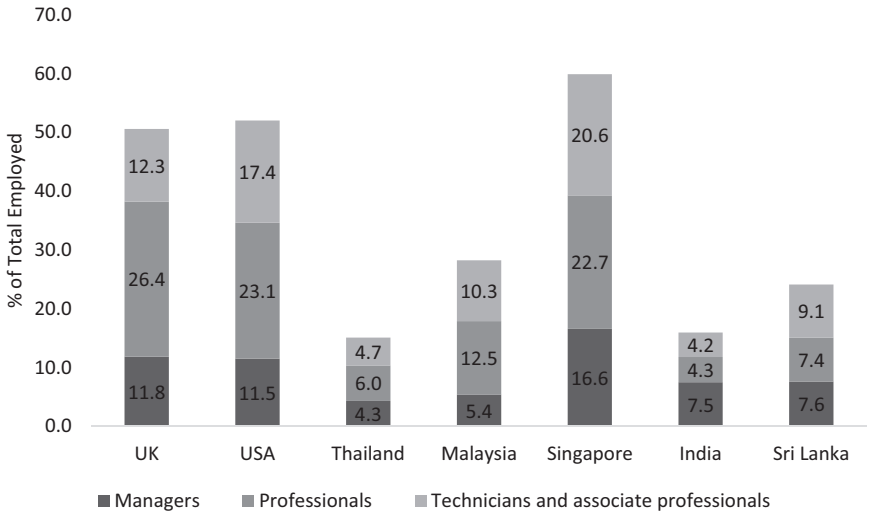
The IPS' 'Sri Lanka: State of the Economy 2019' provided an extensive analysis of how the ongoing technological transformations are changing the employment landscape and reorganising the labour markets worldwide.[5] These effects will also affect access to decent work in Sri Lanka as existing manual jobs/functions have been replaced with automated services and certain brick and mortar businesses are being replaced by online platforms. According to the earlier mentioned analysis, with rapid technological changes, the sustainability of low-skilled jobs is decreasing, as computers and machines take over the activities once conducted by low-skilled workers. At the same time, higher-skilled workers are needed to carry out existing jobs and the new jobs that are created. The jobs that are least likely to be replaced by technological developments are high-skilled jobs represented by the occupation codes 1, 2 and 3 of the International Standard Classification of Occupations (ISCO) (i.e. ISCO 1: Managers, Senior Officials and Legislators; ISCO 2: Professionals; ISCO 3: Technicians and Associate Professionals).

According to the ILO, a first stage or higher tertiary level education is necessary to conduct the tasks involved in such high-skilled occupations, as these jobs usually involve the knowledge of complex technical and practical skills, as well as problem-solving, decision making and creative skills. Given this, many countries are seeking to move towards knowledge-based economies which drive growth through innovations. Such workers are generally referred to as science and technology (S&T) workers. At present, wide recognition for S&T workers means they are much needed for sustainable economic growth in a country. Moreover, with many lower-skilled jobs getting obsolete or being drastically changed, investing in S&T jobs is needed to provide sustained access to reliable jobs. Many advanced countries strive to increase the share of S&T workers in a country to support knowledge-based economic development.

In the case of Sri Lanka, the LFS 2020 of the DCS indicates that about 21.7% of workers were in S&T jobs in 2020. This share has slightly increased by about three percentage points from 2016 to 2020. However, compared to the share of S&T workers in more advanced countries like the United States (US), the United Kingdom (UK), Singapore and Malaysia, the share of S&T workers in Sri Lanka is low as shown in Figure 6.1.

[5] Arunatilake, N. (2019). 4IR and the Future of Work in Sri Lanka. In *Sri Lanka: State of the Economy 2019.* Colombo: Institute of Policy Studies of Sri Lanka. pp. 73-95.

Figure 6.1
High-skilled Workers as a Share of Total Employed



Note: Data for 2019 for the UK, India and Sri Lanka and 2020 for the other countries.
Source: Authors' compilation based on ILOSTAT data.

Further, usually, S&T workers should have tertiary level education to gain the skills needed to conduct job-related tasks efficiently. However, in the case of Sri Lanka, not all who do S&T jobs are tertiary educated.[6] As per census 2012 data compiled by the DCS, 51% of workers doing professional or associate professional jobs had less than a tertiary level education. This suggests that workers are not properly trained. Somewhat unexpectedly, in Sri Lanka, a higher share (27.5% in 2020) of female workers – relative to the share (18.9%) of male workers – are S&T workers. This is largely due to the large share of female teachers and health professionals in the country. According to the LFS 2020, 10.7% of female workers were in the education sector compared to only 2.3% of male workers in the same sector. Part of the dearth of tertiary-educated workers in the country is due to the limited access to tertiary education and the emigration of skilled workers. Sri Lanka will need to invest in increasing job creation for S&T workers and provide them with competitive salaries and benefits. At the same time, the country needs to invest in increasing access to quality tertiary education so workers who undertake to do S&T-related work are properly skilled.

6.2.2 Access to Employment with Social Security

The previous section focused on the availability of productive jobs, and how this has changed over time. Even when jobs are available, not all population groups have the same access to jobs. Access to decent jobs is especially affected by a range of factors including the legal context governing the labour market, availability of social infrastructure such as transport, and childcare facilities, security, and social norms.

[6] Arunatilake, N. (2016). *Labour Market Characteristics - Thematic Report* based on Census of Population and Housing 2012. Colombo: United Nations Population Fund, Sri Lanka.

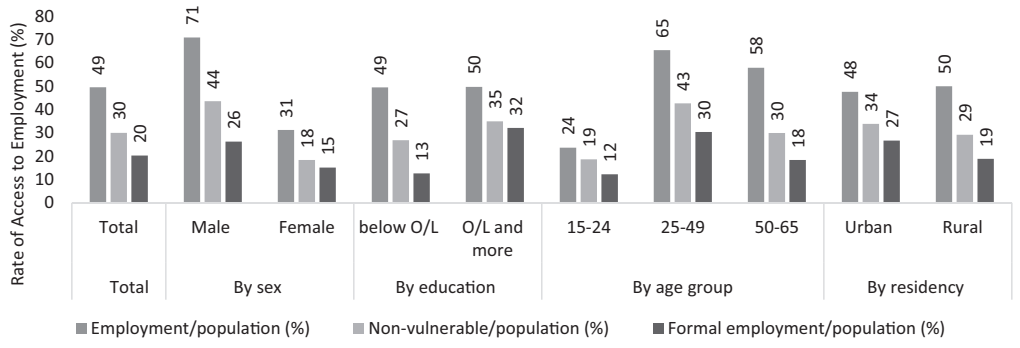
How these factors affect access to decent jobs will be discussed later in this chapter. This section describes the gaps in access to employment with social security, measured by access to formal employment. According to the DCS, formal employment is defined as work in a registered organisation, which maintains formal written accounts, and has more than 10 regular employees. By legislation, such workplaces must register their workers with the Employees' Provident Fund (EPF). As a result, formal workers are covered by social security.

According to the LFS 2020 of DCS, only 33% of the total employed were formal workers. Of this, a majority (60%) were males. However, among the females employed, a higher share of workers were formal workers – i.e. 39.9% of females employed were formal workers compared to only 29.6% of males employed. This indicates that females are more likely to work in formal employment. Across economic sectors, the share (42.1%) of formal workers in the non-agriculture sector was much higher, than the share (8.6%) of formal workers in the agriculture sector.

Before looking at access to formal work, it is useful to assess access to any kind of work. The employment to population ratio (EPR) – i.e. the share of employed in the working-age population – is a good indication of the availability of work in the labour market. As can be seen in Figure 6.2, the EPR varies widely across population groups. It is the highest for males, followed by those in the prime age group (25-49 years). It is the lowest for youth (15-24 years) and females. These statistics suggest that although jobs are available in the economy, these are either not attractive or not accessible to youth and females. In the rest of this section, the quality of available jobs using diverse measures is discussed.

Not all employment is decent. It is now well documented that most vulnerable people engage in any type of available employment, as they need employment income for survival. Some

Figure 6.2
Access to Different Types of Employment



Notes: Employees in (a) a registered organisation (b) institutes maintaining formal written accounts (c) institutes having more than 10 regular employees are considered formal employees. Employed persons who are not own account workers or contributing family members are in non-vulnerable employment.

Source: Authors' compilation based on LFS 2018, DCS.

Like other measures of decent work, access to formal work also varied substantially across population groups. Those educated had the highest access to formal employment, followed by prime-age workers.

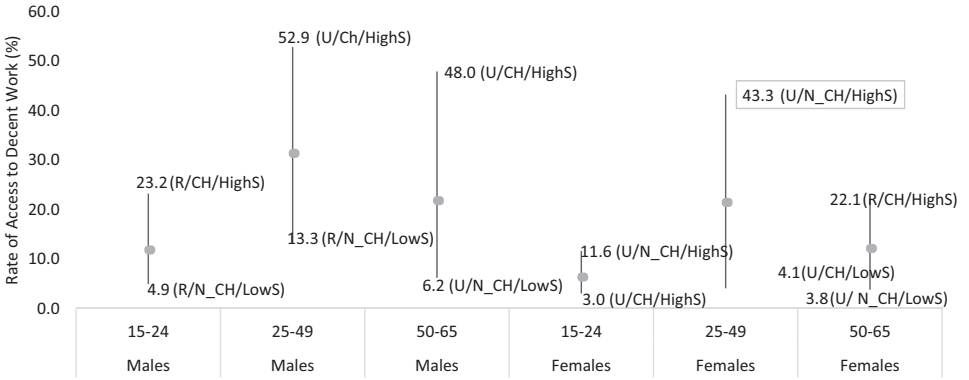
types of workers undertake precarious jobs that do not provide social security which make them vulnerable to adverse shocks. Broadly, the ILO defines self-employment and contributory-family-work as vulnerable employment. Non-vulnerable workers are either employers or employees (i.e. working for an employer) and as such, they are not dependent on the income earned from their economic activity for wages and thus have more secure work. One proxy measure that can be used for decent work is non-vulnerable employment.

As can be seen in Figure 6.2, among population groups, the gap between the shares of employed and the employed in non-vulnerable employment is quite large. In the total population, although 49% were employed, only 30% were in non-vulnerable employment. This indicates that the gap in access to non-vulnerable work for those employed was 19%. This gap was the highest for older workers (50-65 years) and males, where the gap in access to non-vulnerable work among the employed was 28% and 27%, respectively. The gap was the lowest for youth, females, those residing in urban areas, and the more educated.

In the cases of youth and females, the lower gap is partly due to non-participation in the labour market. Young people have fewer responsibilities and can afford to wait for better jobs as many of them have family support. Apart from this, married females are supported by their spouses and can afford to be outside the labour market waiting for a better job. This is probably the reason that the youth unemployment rate during the period was the highest (21.4%) among all the population groups considered. Further, the unemployment rates were high for females and the more educated (7.1% and 7.4%, respectively), compared to the overall unemployment rate of 4.4%.

The best measure of decent work in the LFS is formal employment. Formal employees, by definition, are non-vulnerable workers whose employer contributes towards a provident fund on their behalf. As can be seen in Figure 6.3, only 20% of the working-age population were in full-time formal employment. Like with other measures of decent work, the access to formal work also varied substantially across population groups. Those educated had the highest access

Figure 6.3
Gaps in Access to Decent Work, by Gender and Age Group[a]



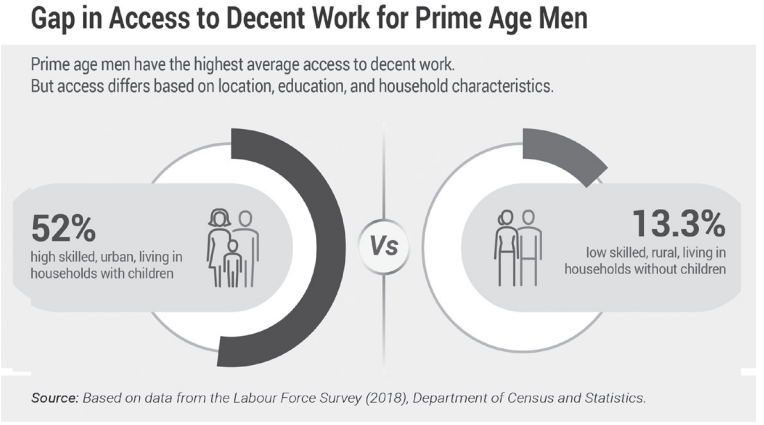
Notes: a. Decent work is defined to be formal full-time employment as employees.

Figures can be described as follows: The lines indicate the range in access to decent work, where the lowest point shows the group with the lowest access and the highest point indicated the share with the most access. The circle shows the average access. U – Urban; R – Rural; CH – Households with children; N_CH – households without children; HighS – Education Ordinary Level (O-Levels) or higher; LowS – Education O-Levels or lower. The access to decent work of male, and female populations in each age group were assessed across residence (urban and rural), level of education (O-Levels or higher, without O-Levels) and household characteristics (households with and without children).

Source: Own calculation using LFS 2018, DCS.

to formal work, followed by prime-age workers. The youth, those with low levels of education and females have the least access to formal work.[7] Across residential sectors, those in urban areas had more access to formal work compared to those in rural areas.

The results of a tree analysis conducted using a methodology developed by the United Nations Economic and Social Commission (UNESCAP) to identify gaps in access to decent work – defined as access to full-time formal employment as employees – are summarised in Figure 6.3.[8]



[7] As a share of total employed, females in formal employment are higher than males in formal employment. However, as a share of the working age population, females in formal employment are lower than males in formal employment. This is because only 31% of females are in employment, compared to 71% of males.

[8] United Nations Economic and Social Commission. (2018). *Inequality of Opportunity in Asia and the Pacific - Decent Work.* Bangkok: United Nations Economic and Social Commission.

Prime age males have the highest average access to decent work, followed by older males and prime-aged females. But large variations are evident between different sub-groups in these population groups. For example, although prime-age men have the highest average access to decent work, the gap between the group with the lowest access (13.3% for prime-aged low-skilled rural males living in households with no children) and the highest access (52% for prime-aged high-skilled urban males living in households with children) is very large. This suggests that policies to improve the education levels of rural males, or policies to improve access to decent work in rural areas can help improve access to decent work for prime-age men.

Moreover, in the case of older male workers, the gap between access to decent work varies widely, with access for the most disadvantaged group (comprising urban low-skilled workers living in households with no children) being just 6.2% of the population, while that for the highest (comprising urban, high-skilled workers living in households with children) being 48% of the population. However, the lowest access is for low-skilled urban males living in households with no children. This is partly because formal job opportunities are rarely available for individuals after retirement age, especially for the low-skilled.

In the case of prime-age females, low-skilled urban women in households with children had the lowest access to decent work (4.1% of the population), while high-skilled urban women in households without children had the highest access to decent work. Again, this shows that education and access to affordable childcare can improve access to decent work. A higher wage rate may be needed to entice low-skilled women in households with children to take up market work. This is because, in the absence of family support, they will need to spend more on reliable childcare and the support of others to be able to enter the labour market.

The gaps in access to decent work were relatively low in the other population groups (i.e. young males and females, and older females). But the average access to decent work in

Figure 6.4
Share of Workers Working as Full-time Employees



Source: Authors' calculations using LFS 2018, DCS.

these population groups was also low. In the case of youth, this could be due to time spent on education. In the case of older females, it could be a lack of experience in the labour market. Moreover, the need for employment may be lower for those high-skilled older males and females who receive pensions. Further, extended family support in Sri Lankan households such as caring for their grandchildren whose parents are employed contributes to low access to decent work.

Irrespective of their residence and level of education, a larger share of females in households without children were in full-time formal employment than females in households with children. This indicates that having children still hinders females from accessing decent work.

As shown in Figure 6.4, irrespective of their residence and level of education, a larger share of females in households without children were in full-time formal employment than females in households with children. This indicates that having children is still an obstacle for females to access decent work. In contrast, males in households with children were more likely to be in full-time formal employment. This could partly compensate for the labour income from females in the household.

A recent study shows that most women spent anywhere from two to three hours a day caring for children, accounting for more than 80% of total household time spent on this activity.[9] The only exception was women in public employment. However, they also devoted 60% of the household time caring for children. Irrespective of their occupation, women spent more than 80% of the household time allocated for cooking. The same study finds that most women who are not in the labour market are happy with their roles as homemakers. Further, both males and females accepted, for the large part, the traditional gender roles of women as homemakers and males as breadwinners. This indicates that both males and females are fixed in their traditional gender roles. Part of this is due to the ingrained social norms and cultural practices formed by individuals over the years and by those inculcated by the education system and influenced by different types of media. Concerted efforts need to be made to minimise traditional gender biases so that males and females are free to make informed

[9] This section draws evidence from International Labour Organization. (2016). *Factors Affecting Women's Labour Force Participation in Sri Lanka*. Colombo: International Labour Organization.

decisions on labour market participation based on their individual circumstances. It must be noted that in households with more educated women and high-skilled males, the likelihood of females entering the labour market was higher. This could be the higher opportunity cost of staying at home for more educated women and more positive attitudes of high-skilled males on the economic engagement of their spouses.

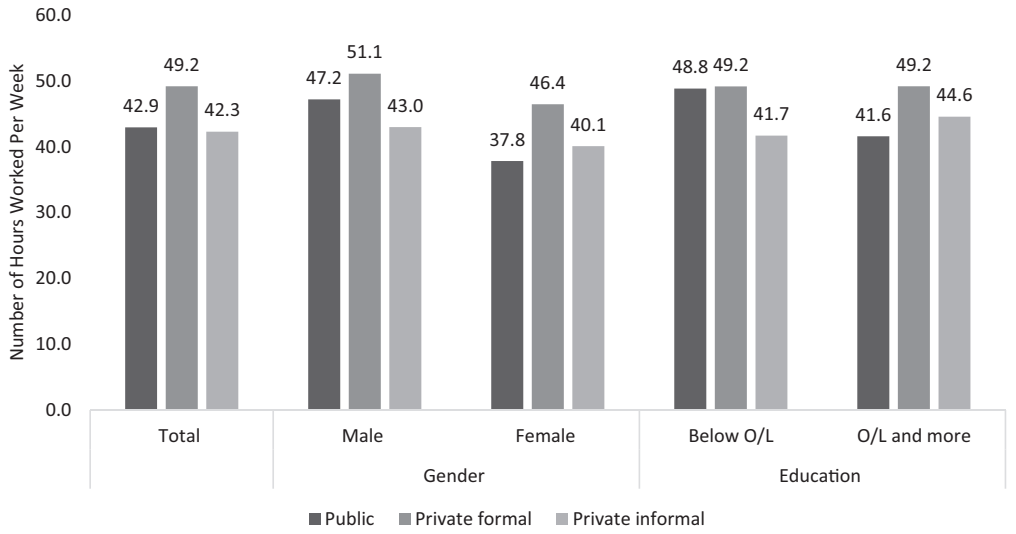
6.2.3 Rights at Work and Social Dialogue

Work Hours

A vital aspect of decent work is allowing sufficient time for workers to rest and attend to their other personal and social activities. Sri Lanka's labour legislation has imposed a maximum number of work hours for a non-executive worker per week to control exploitation of worker time. Most legislation regulating the working conditions of Sri Lankan workers (e.g. Shop and Office Employees Act, No. 19 of 1954 and the Wages Boards Ordinance of 1988) specify that workers may only be employed for a maximum of eight hours a day and a maximum of 45 hours a week. These hours exclude any times given for rest and meals. Usually, such restrictions do not apply to persons holding executive positions. In times of need, employers are allowed to extend work hours, but workers need to be compensated at a higher rate for these extended hours.

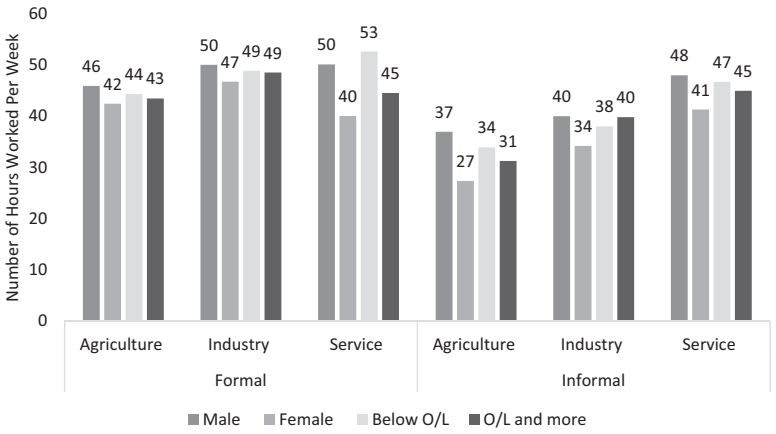
Figures 6.6 and 6.7 show the actual number of hours worked by employees by various population groups. On average, those in formal employment work the longest hours at 49.2 hours a week. These hours are on average longer than the maximum specified by legislation, and those of the public sector employees. Workers in informal employment work the shortest hours. This pattern is consistent across population groups. Irrespective of industry, formal workers work

Figure 6.5
Hours Worked Per Week, by Economic Sector

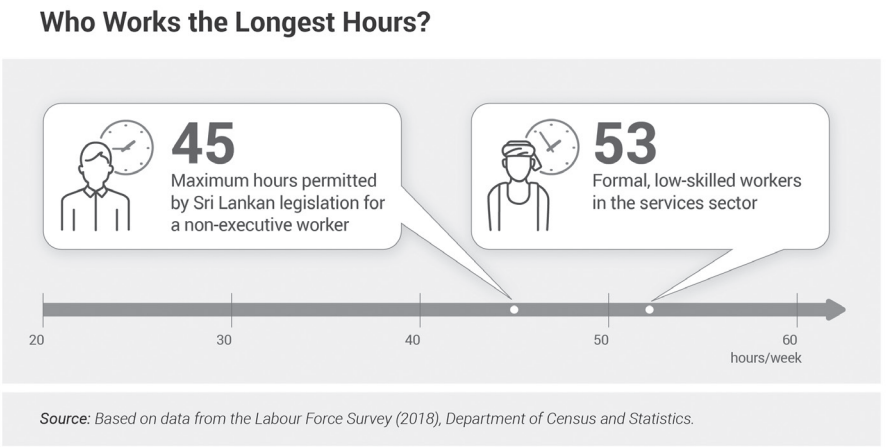


Source: Authors' calculations based on LFS 2018, DCS.

Figure 6.6
Hours Worked Per Week, by Major Industry



Source: Authors' calculations based on LFS 2018, DCS.



Source: Based on data from the Labour Force Survey (2018), Department of Census and Statistics.

longer hours than informal workers. Formal low-skilled workers in the services sector worked the longest hours at 53 hours a week in 2018.

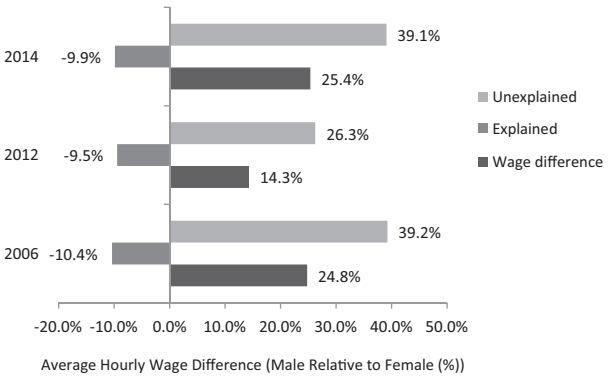
Across population groups, males in private formal employment worked the longest hours. The average number of hours worked did not differ much across high-skilled and low-skilled private formal workers. Females in the public sector worked the shortest number of hours (on average females worked 37.8 hours per week compared to 47.2 hours per week worked by males). This is possibly due to the large number of female teachers, whose working hours are shorter.

Males, low-skilled workers, and youth typically work longer hours while even in the private formal sector, females work on average 4.6 hours per week less than males. This could be due to females choosing to engage in employment that give them sufficient time to attend to household duties.

Wage Gaps

As shown in Figures 6.8 and 6.9, the analysis shows that the average wages for males were 14-25% higher over the 2006-2014 period compared to females. In some countries, such differences in wages can be explained by the productive capacity of diverse workers. This means that, if males are more educated than females, it is expected that males will earn more than females. But, in the case of Sri Lanka, employed females are more educated than employed males. According to the LFS 2020, 24.6% of females

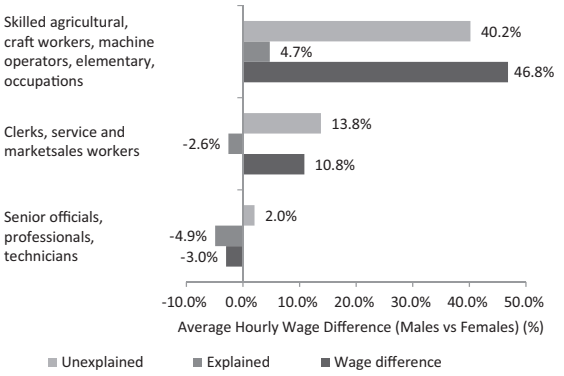
Figure 6.7
Average Hourly Wage Difference (Male Relative to Female)



Note: Northern and Eastern Provinces are not included. The above results are based on an Oaxaca decomposition analysis which included the following explanatory variables: years of education, experience, experience squared, household head, marital status, formal occupation, occupation category, district, and sector.

Source: Authors' calculations based on LFS data (various years).

Figure 6.8
Average Hourly Wage Difference (Males vs Females), by Occupation Group



Note: Northern and Eastern Provinces are not included. The above results are based on an Oaxaca decomposition analysis which included the following explanatory variables: years of education, experience, experience squared, household head, marital status, formal occupation, occupation category, district, and sector.

Source: Authors' calculations based on LFS data (various years).

had Advanced Level (A-Level) or a higher level of education, compared to only 14.6% of males with similar levels of education. This indicates that the discrepancy in wages is largely unexplained. Data show that based on productive endowments, females should earn 10% higher than males, mainly because females tend to be more educated than males in Sri Lanka. Although the wage gap between males and females was observed for all types of workers, this gap was the highest for low-skilled workers (Figure 6.7).

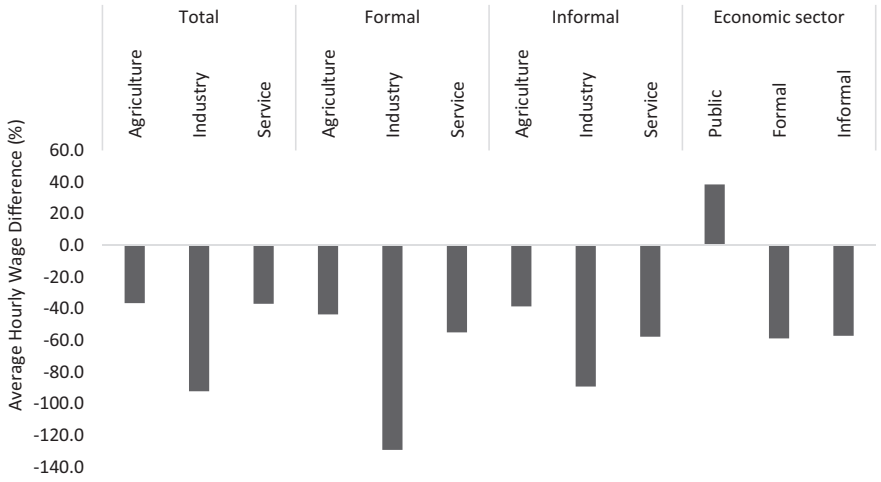
Data show that the labour force participation rates are lower among low-skilled females. The gap in wages could result in lower labour force participation if the wages paid are not attractive enough to entice female workers to enter the labour market. Moreover, when wages are not lucrative, it can diminish the likelihood of existing females remaining in the labour force. Such differences in wage levels can affect women's access to decent work.

As seen in Figure 6.9, average wages for females were lower than those for males in almost all industries by economic sectors. The only exception was in the public sector, where the average hourly wages were higher for females than males. Even in the public sector, males earned a slightly higher monthly wage than females. The positive average hourly wages are due to females working a lesser number of hours than males.

Social Dialogue[10]

Social dialogue is defined by the ILO as the sum of all types of negotiations, consultations and information exchanges between workers, employers, and the government on issues of common interest relating to economic and

Figure 6.9
Average Hourly Wage Difference (Males vs Females), by Industry (Female Relative to Male)



Source: Authors' calculations based on LFS 2018.

[10] The statistics quoted in the section are from the Department of Census and Statistics. (2020). *Labour Force Survey.* Battaramulla: Department of Census and Statistics.

social policy in a country.[11] According to the ILO, such social dialogue has contributed to economic stability by reducing social disputes by promoting inclusive and consultative decision making. Social dialogue is made possible by the existence of strong, independent, autonomous, and representative employer and worker organisations.

The vast number of worker unions and the size of their membership indicate the freedom available to workers to get organised and express their views. Sri Lanka's Constitution allows every person the freedom to join a trade union as a fundamental right.[12] According to the Trade Union Ordinance, any seven persons can come together to form a trade union. In 2020, 1,843 labour unions were functioning with a total of 343,281 members in the country. Close to 82% of these were in the public sector or public corporations whereas only 18% of the trade unions were private sector trade unions. Despite the marginal decline in the number of registered labour unions in the country from 2,059 in 2011 to 1,843 in 2020, membership of the unions has dropped substantially over the same period from 1,042,016 in 2011 to 343,281 in 2020. Several reasons, including the ageing of trade union activists, lack of desire for younger workers to join trade unions, fragmentation of trade unions, weak tri-partite bargaining in the country, and the rising number of precarious workers have contributed to this decline.[13]

On the employers' side, the Employers' Federation of Ceylon (EFC) established in 1929 is the primary employer's organisation in the country. The EFC is responsible for promoting employer interests at the national level regarding industrial relations and labour laws. More information on the functioning of these unions and associations is needed to assess to what extent they represent the interests of workers and organisations. In 1994, the National Labour Advisory Council (NLAC) was established to facilitate consultations and collaborations between the government and employer, and employee organisations on matters relating to social and labour policies and international labour standards.[14] During the COVID-19 pandemic, tripartite negotiations (between employers, unions, and the government) were used to pro-rate wages of monthly paid employees in all sectors excluding leisure, hospitality and tourism sectors to assist employers to deal with reduced cash flows while retaining jobs. [15]

Discrimination in the Workplace[16]

Other than the supply-side issues discussed elsewhere, several demand-side factors such

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[11] Decent Work and Economic Growth. (n.d.). F*ull and Productive Employment and Decent Work for All.* Retrieved May 10, 2022, from Global Goals: https://www.globalgoals.org/goals/8-decent-work-and-economic-growth/; International Labour Organization. (n.d.) Areas of Work. Retrieved May 10, 2022, from International Labour Organization: https://www.ilo.org/actemp/areas-of-work/WCMS_731146/lang--en/index.htm

[12] International Labour Organization. (2022). *Workers and Employment Organizations in Sri Lanka and the Maldives. Advancing Social Justice, Promoting Decent Work.* Retrieved May 28, 2022, from International Labour Organization: https://www.ilo.org/actemp/areas-of-work/WCMS_731146/lang--en/index.htm

[13] International Labour Organization. (2020). *Opportunities and Challenges in Formation and Functioning of Trade Unions in Sri Lanka.* Colombo: International Labour Organization.

[14] Ministry of Labour. (2022). *National Labour Advisory Council (NLAC).* Retrieved May 11, 2022, from Ministry of Labour: https://labourmin.gov.lk/national-labour-advisory-council/#:~:text=National%20Labour%20Advisory%20Council%20(NLAC,labour%20policies%20and%20international%20labour

[15] Institute of Policy Studies of Sri Lanka. (2021). Pandemic and the New Normal: Sri Lanka's Labour Market in *Sri Lanka State of the Economy 2021.* Colombo: Institute of Policy Studies of Sri Lanka. pp. 109-130.

[16] This section draws information from the National Institute of Labour Studies. (2016). *Project on Increasing Women's Participation in the Labour Force*. Colombo: Mimeo.

as occupation segregation, wage gaps, and discrimination in the workplace too affect workers' access to decent work. When working conditions and working hours are more attractive to certain types of workers, occupation segregation takes place. For example, occupations such as construction and transport are more attractive to males. Given the long hours of such work, these are not attractive to females who are also engaged in balancing household responsibilities and work responsibilities. Further, in many instances, the work environments in sectors like construction and transport have other drawbacks for women such as lack of proper restrooms, etc.

A recent study by the National Institute for Labour Studies obtained employer attitudes towards recruiting female workers. The survey posed a series of questions, such as "Is skill a constraint for hiring females?", and "Is providing security a constraint for hiring females?", to discern whether the employers agreed or disagreed. Employer attitudes toward recruiting females varied somewhat across industries, but the majority indicated that diverse factors such as lack of skills, security issues, and family constraints are challenges when hiring females. Notably, this feedback was based on personal perceptions as well as past experiences of the behaviour of female workers such as high employee turnover, absenteeism, less dedication to work and inability to take on challenges.

The above-mentioned study shows that biases in the legislation can create unintended impediments to hiring workers. The framing of existing labour legislation in Sri Lanka is paternalistic, whereby it operates on the premise that females need to be protected through regulations which require employers to provide special privileges when hiring females. Further, in Sri Lanka, employers must bear the cost of providing maternity benefits to female workers. Such regulations make employing females costly for employers. As such, they may show a preference for hiring males over females, reducing women's access to decent work.

In addition, the traditional attitudes and social norms on the roles and responsibilities of males and females play a role in women's access to decent work. Most firm-level policies on employment are made by bodies where female representation is either non-existent or minimal. As such, the needs and requirements of females are rarely taken into consideration in those policies. As can be seen, these social norms are considered by employers when making decisions on recruiting female workers. A recent ILO study finds that some managers were unaware even of the implicit gender biases in the firm-level policies and practices.[17] One example is the requirement to work excessive hours beyond the legislated maximum. Such policies are more challenging for females as primary caregivers for their families, especially for those with children.

6.3 Conclusions and Policy Recommendations

6.3.1 Conclusions

Access to decent work is crucial for achieving sustainable development as it promotes development and growth through reducing poverty, promoting human dignity, and providing social security. Sri Lanka's current economic crisis also shows the significance of access to

[17] International Labour Organization. (2017). Breaking Barriers: *Unconscious Gender Bias in the Workplace.* Geneva: International Labour Organization

jobs with social security to prevent people from falling into poverty. The adverse shocks Sri Lanka experienced in the recent past have weakened its labour market conditions, thus resulting in a setback to the Decent Work Agenda.

To get the country back on track to achieve the Decent Work Agenda, Sri Lanka must invest in promoting productivity and creating better jobs. As shown earlier, the availability of opportunities for decent work has decreased over time in Sri Lanka. The employment creation in the more productive services sector has declined, while employment creation in the less productive agriculture sector has increased. This was partly due to external factors such as the COVID-19 pandemic, which is beyond the control of policymakers. But it is also due to a lack of strategic planning and lack of resilience in the economy to face adverse shocks. Along with rapid technological changes, new jobs emerge while conventional jobs get obsolete or drastically change. As many of the remaining jobs ask for high-skilled workers, future job growth and opportunities are likely to be in high-skilled jobs. Hence, it is also important to invest in creating high-skilled managerial, professional, and technical jobs which have a higher probability of sustaining access to decent work.

Even when jobs are available, not all workers have the same access to decent work. Access to decent work opportunities in Sri Lanka is limited. Only 20% of the working-age population had access to formal work in the country. This level varied widely across types of workers. The access to formal employment was much lower than the overall average for females, low-skilled workers, and youth. It was also slightly lower for old-age workers and rural sector workers.

Gender biases in the existing legislation that give special privileges to females, non-compliance with existing regulations, gender wage gaps, and social norms that limit females to household work as well as social norms in the workplace that restrict opportunities for females, are some factors that affect women's access to decent work.

Lastly, investment in education is important for promoting access to decent work as well as job creation. With rapid technological changes, the labour market structure and the skill requirements are changing globally. In this setting, Sri Lanka is no exception.

6.3.2 Policy Recommendations

Facilitating Decent Job Creation

The importance of supporting sectors and industries that contribute to growth while generating decent work opportunities cannot be emphasised enough. Often, policy initiatives for improving access to decent work focus on supply-side challenges faced by individuals such as skill acquisitions and transport. But in the absence of decent work opportunities, these supply-side interventions will not be very successful. Given the experience, the services sector has the best potential for creating decent jobs. Promoting innovation-led productivity growth can improve access to decent work in the industry and the agriculture sectors as well. However, job creation should be linked to value addition and take into consideration improving labour productivity. Strategic investments that result in expanding productive work play a major role in improving access to decent work. To increase sustainable access to decent work, the country must not only invest in expanding sectors that are likely to generate productive employment but put in place mechanisms to safeguard such sectors from adverse shocks.

The experience of COVID-19 provides many examples of how more resilient decent jobs can be created. Many employers successfully resorted to off-site work options during the pandemic. Learning from that experience, facilitating an online work culture by enhancing access to information and communication technology (ICT) facilities and training workers and managers to use ICT and manage online jobs can provide avenues to increase access to decent work for rural individuals. Besides, facilitating such opportunities will encourage more females and youth to enter the labour market, who are unable to travel to work due to other responsibilities such as care duties and education activities.

Many countries permitted concessions to firms affected by the COVID-19-related economic downturn to enable them to continue operations and continue to provide employment.[18] Some such initiatives included providing concessionary loans, buying equity stakes to infuse capital to firms facing financial difficulties, and providing wage support to retain workers. Introducing policies to provide such support to companies could assist them to be more resilient and retain jobs during economic downturns.

Increasing Access to Formal Employment Opportunities

Expansion of formal employment will ensure that more workers will have access to social security and protection through enforcing labour laws.[19] Many firms choose to remain informal as the procedures and costs involved in becoming a formal firm outweigh the benefits of being formal. Facilitating business registration, fair tax policies, reforming legislation that minimises the rising costs of formal employment, and offering more benefits to formal sector firms and workers, can assist to expand the formal sector. For example, the formal firms in Sri Lanka must incur a variety of additional costs, such as contributing to the social security of their workers, providing maternity benefits using private funds, compensating workers when contracts are terminated, etc. Such costs are difficult to bear, especially for small firms. Providing support/incentives to minimise such additional costs can help expand the formal sector. Meticulous policymaking is crucial at this level to ensure that such mechanisms should not compromise avenues for decent work or worsen gender biases. In many countries, maternity benefits, and some types of social insurance are provided through a publicly maintained fund, to which all workers contribute. Such funds can reduce the burden of providing such social benefits to smaller firms.

Reducing Gender Gaps in the Labour Market

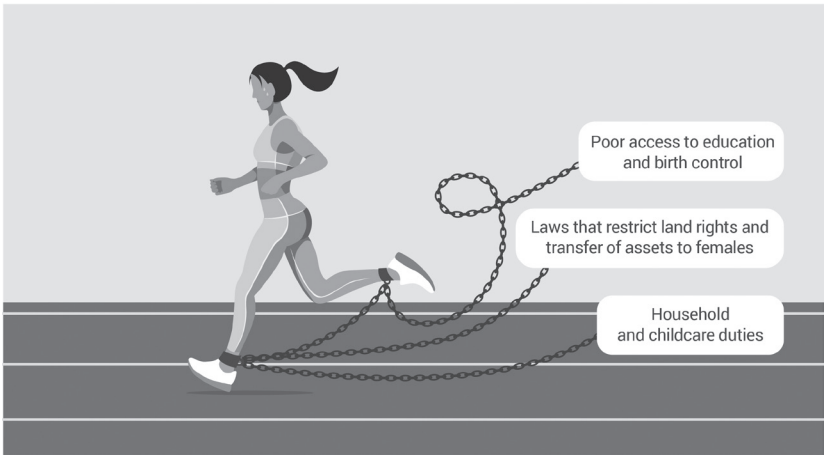
The discussions in this chapter show that even when formal employment opportunities are available, females have less access to these work opportunities. A variety of factors ranging from the legal environment, social infrastructure to social practices inside and outside the workplace, are obstructing greater female participation in the labour market. Making labour legislation more gender-neutral, improving access to affordable and quality transport and childcare facilities, and regulations that reduce explicit and implicit discrimination in the workplace can improve women's access to the labour market.

One major obstacle faced by women when accessing decent work is balancing reproduction

[18] Institute of Policy Studies of Sri Lanka. (2021). Pandemic and the New Normal: Sri Lanka's Labour Market in *Sri Lanka: State of the Economy 2021.* Colombo: Institute of Policy Studies of Sri Lanka. pp. 109-130.

[19] United Nations Economic and Social Commission. (2018). Inequality of *Opportunity in Asia and the Pacific - Decent Work.* Bangkok: United Nations Economic and Social Commission.

Factors Affecting Women's Access to Decent Work



and home production-related activities, and market work.[20] Increasing evidence shows that social structures shaped by culture and religion and how individuals relate to each other influence female labour force participation, and access to decent work. Such social norms directly influence women's access to decent work, affecting labour force participation such as the division of labour within the household and freedom of movement. These indirectly affect women's access to decent work by shaping access to education and birth control, as well as customs and laws regarding land rights and transfer of assets to females.

As discussed, discrimination in the workplace, working conditions that are not family-friendly, and wage gaps are deterrents to promoting decent work. Regulation minimising discrimination, and legal reforms that eliminate gender biases in the legislation can facilitate access to decent work. Further, existing legislation that is in place to limit working hours and specify leave entitlements need to be duly implemented, to attract more females to the formal employment market.

Lastly, investing in social infrastructure that minimises the cost and duration of transport and provides families good quality affordable options for child and elderly care can also improve women's access to decent work.

[20] This paragraph draws evidence from Floro, M. S., & Meurs, M. (2009). *Global Trends in Women's Access to Decent Work.* Berlin: Friedrich-Ebert-Stiftung.

7. Gender Equality and Women's Empowerment

7.1 Introduction

Sri Lanka presents a mixed picture in terms of gender equality as evidenced by internationally accepted indicators such as the Gender Inequality Index (GII) by the United Nations Development Programme (UNDP), Global Gender Gap Index (GGGI) by the World Economic Forum and the Millennium Development Goals (MDGs) by the United Nations. The country's achievements in ensuring gender parity in certain crucial sectors like health and education are commendable. Nevertheless, Sri Lanka has failed to display notable progress in other critical areas. Economic and political participation remain areas that need serious attention and immediate action. Moreover, gender-based violence, discriminatory social norms and practices, and gaps in personal laws are areas Sri Lanka needs to work on rigorously to achieve gender equality.

These areas require even more attention in times of deep economic crises, social unrest and loss of confidence in government. Sri Lanka's current economic crisis has exerted immense pressure on the country's progress towards achieving gender equality and empowerment. For several reasons, women's vulnerability to an economic crisis is more significant than men's. Pre-existing gender inequalities, women's disadvantageous position in the labour market in securing decent jobs, social protection coverage, and lack of access to resources are key contributors. Women being the primary caregivers at the household level, are also compelled to refrain from paid market activities limiting their income-generating ability during harsh economic downturns.

In addressing the above challenges, the Sustainable Development Goals (SDGs) framework provides a helpful guide. SDG 5 aims to "achieve gender equality and empower all women and girls." Sri Lanka failed to reach a desirable improvement under the previous global MDGs. As a poor performer on gender equality, the country needs to invest more effort, coordination, and resources this time around.

This chapter focuses on two selected targets among the nine targets under SDG 5. The first is Target 5.4 to recognise and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate. The second is Target 5.5 to ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic, and public life.

Those two targets were selected considering their direct linkage with women's economic empowerment. Women's economic empowerment is highly relevant in the context of Sri Lanka's worst-

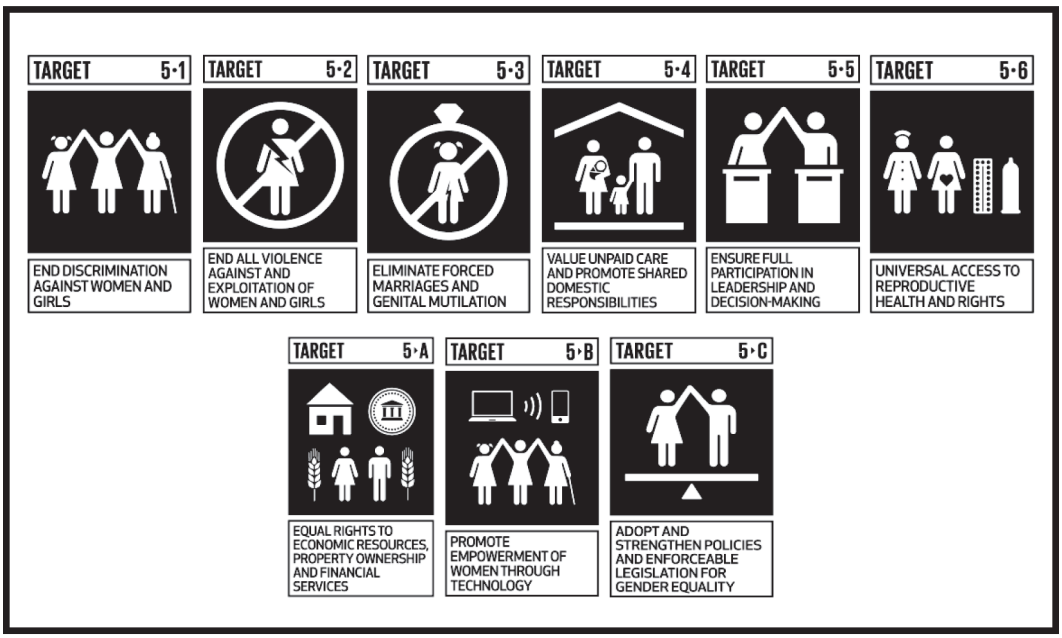
ever economic crisis and helps to understand existing gaps better to bridge the recovery efforts. In addition to the country context relevancy, measurability of the indicators specified under each target and availability of data were also considered in selecting the targets.

7.2 SDG 5 and Sri Lanka's Progress

Nine targets and fourteen indicators have been defined for SDG 5 (Figure 7.1). While Sri Lanka can be considered a success story in achieving the previous MDGs overall – having met 13 of the 27 specific targets, with twelve 'on track' and only two 'off track' amongst the 44 relevant indicators – it did not achieve a desirable improvement in MDGs on gender equality and empowerment (MDG 3). Despite this poor track record, Sri Lanka became a signatory to the more comprehensive and complex 2030 Development Agenda.

Sri Lanka has performed relatively well in certain SDG 5 targets (e.g. eliminating child marriages, eliminating violence against women, and ensuring universal access to sexual and reproductive health and reproductive rights) compared to its regional counterparts (Table 7.1). However, Sri Lanka does not show such progress in ensuring women's full participation in leadership and decision-making, especially in the political arena. A similar pattern of time allocation on unpaid care work by men and women can be observed across the selected countries, where women shoulder the bulk of domestic duties more than men.

Figure 7.1
SDG 5 Targets



Source: The Global Goals. (n.d.). *5 Gender Equality.* Retrieved May 20, 2022, from The Global Goals: https://www.globalgoals.org/goals/5-gender-equality/

Table 7.1
Towards Achieving SDG 5: A Country Comparison

	Sri Lanka	India	Bangladesh	Philippines	Thailand
Target 5.1: End discrimination against women and girls					
Voting rights for female citizens (2020)	Yes	Yes	Yes	Yes	Yes
Whether the Constitution mentions gender non-discrimination (2015)	Yes	Yes	Yes	N/A	N/A
Whether the law mandates non-discrimination in hiring (2015)	No	Yes	No	No	No
Strength of the legal framework for gender equality (2020)	N/A	54.50%	75%	70%	50%
Strength of the legal frameworks combatting violence against women (2020)	N/A	83.30%	75%	66.70%	50%
Strength of legislation related to economic benefits/employment (2020)	N/A	40%	20%	100%	60%
Strength of legislation addressing equality in marriage and family (2020)	N/A	100%	63.64%	45.45%	81.82%
Target 5.2 End all violence against and exploitation of women and girls					
Share of women, 15 years and older, who experienced violence from an intimate partner (2018)	3.30%	15.90%	20.80%	4.90%	7.10%
Target 5.3: Eliminate forced marriages and genital mutilation					
Share of women of 20 to 24 years who were married by age 15	0.90% (2016)	N/A	15.50%	2.20% (2017)	3%
Share of women of 20-24 years who were married by age 18	9.80% (2016)	27.30% (2016)	51.40% (2019)	16.50% (2017)	20.20% (2019)
Target 5.4: Value unpaid care and promote shared domestic responsibilities					
Average daily number of hours spent on unpaid domestic work by women	5.6 (2017)	5.8 (2014)	N/A	N/A	13a (2015)
Average daily number of hours spent on unpaid domestic work by men	1.5 (2017)	0.52 (2014)	N/A	N/A	4a (2015)
Target 5.5: Ensure full participation in leadership and decision-making					
Women in parliament, % (2020)	5.40%	14.40%	20.90%	28%	15.80%
Women in ministerial positions, % (2020)	3.70%	9.10%	7.70%	13%	0%
Women held elected seats in local government, %	10.90% (2019)	44.40% (2018)	23.30% (2020)	29.10% (2020)	17.90% (2020)

	Sri Lanka	India	Bangladesh	Philippines	Thailand
Women in top managerial positions, % (2020)	8.80%	8.90%	4.80%	29.90%	64.80%
Women in senior and middle managerial positions, %	25.9% (2019)	17.7% (2020)	11.50% (2017)	35.40% (2020)	33.20% (2020)
Target 5.6 Ensure universal access to sexual and reproductive health and reproductive rights.					
Access to sexual healthcare and education for men and women of 15 years and above, %	86% (2022)	74% (2022)	N/A	80% (2022)	N/A
The extent to which country laws and regulations guarantee full and equal access to sexual and reproductive healthcare, information and education to women and men aged 15 years and older	89% (2019)	0.00% (2019)	94% (2019)	75% (2019)	N/A
Target 5.A: Equal rights to economic resources, property ownership and financial services					
Proportion of people with ownership or secure rights over agricultural land (out of total agricultural population), by sex (%)	N/A	6.30% (2012)-females	N/A	N/A	N/A
Whether married women have equal ownership rights to property (2015)	Yes	Yes	Yes	No	Yes
Target 5.B: Promote empowerment of women through technology					
Share of women who own a mobile phone, %	N/A	N/A	30.90% (2017)	N/A	83.70% (2020)
Target 5.C: Adopt and strengthen policies and enforceable legislation for gender equality					
Target 5.C.1 Proportion of countries with systems to track and make public allocations for gender equality and women's empowerment	N/A	Yes (2021)	N/A	N/A	No (2021)

Note: a: Percentage of a 24-hour day.

Sources: Organisation for Economic Co-operation and Development. (2022). *OECD Stat.Time Use.* Retrieved May 20, 2022, from OECD: https://stats.oecd.org/Index.aspx?DataSetCode=TIME_USE#; The World Bank. (2022). *Proportion of Time Spent on Unpaid Domestic and Care Work, Male (% of 24 Hour Day) – Thailand.* Retrieved May 20, 2022, from World Bank: https://data.worldbank.org/indicator/SG.TIM.UWRK.MA?locations=TH;

United Nations. (2021). *Statistics: SDG Indicators Database.* Washington, D.C.: United Nations;

United Nations. (n.d.). SDG Country Profiles. Retrieved on May 25, 2022, from United Nations: https://country-profiles.unstatshub.org/; Our World In Data. (n.d.). *Sustainable Development Goal 5: Achieve Gender Equality and Empower all Women and Girls.* Retrieved May 20, 2022, from Our World In Data: https://sdg-tracker.org/gender-equality; World Economic Forum. (2021). *Global Gender Gap Report 2021.* Geneva: World Economic Forum; Department of Census and Statistics. (2020). *Sri Lanka Time Use Survey – Final Report - 2017.* Battaramulla: Department of Census and Statistics.

7.2.1 Gendered Impacts of the Current Economic Crisis

In recent years, Sri Lanka's efforts to achieve gender equality were severely affected by consecutive crises; the Easter bombings in 2019, the coronavirus (COVID-19) pandemic in 2020, and now the economic crisis, which is aggravated by political turmoil in the country. The challenges created by these crises are weakening the status of gender equality and empowerment and backsliding the impacts of progressive steps taken so far to achieve SDG targets.

Crises, their implications, coping strategies and recovery processes are gendered. Men and women face and survive economic crises differently. These differences, to a greater extent, are dependent on women's and men's relationships with the people and institutions with whom they interact.[1] The different levels of bargaining power that women and men have in the labour market and their different responsibilities at the household level are major deciding factors for a family's chances of recovering from an economic crisis.

Pre-existing gender inequalities such as the underrepresentation of women at all levels of economic decision-making and their over-representation in informal, vulnerable and casual employment also make women more susceptible during an economic crisis. These pre-existing gender inequalities are not only more significant than gender inequalities arising specifically from the crisis but also exacerbate the adverse impacts of an economic crisis on women.

An economic crisis would create two rounds of impacts on women where the first round is visible through loss of employment, fall in borrowing capacity and drop in income (Figure 7.2). Experiences from previous economic crises in other countries and regions indicate variances in labour market participation by men and women. While men's labour force participation remained unchanged during economic crises, women's labour force participation showed a unique scenario, where it rose in the poorest households and fell in more affluent households.[2] Men in developed and middle-income countries (MICs) are in much better positions to survive the crisis as they have higher-paying jobs and more assets and wealth; their jobs are more secure and likely to offer benefits and be covered by unemployment insurance. In contrast, women are employed in low-paid jobs and 'vulnerable jobs' (i.e. self-employed in the informal sector or work as unpaid family workers) and are often not covered by social safety nets.

The second-round impacts are created when vulnerable households respond to declining income with coping strategies that can vary significantly by gender. For women, changes in labour market behaviour, fertility patterns (women tend to defer their fertility during an economic crisis), and investments in children's health and education are evident. In low-income countries (LICs), the adverse effects of lowering investments in health and education are greater for girls than for boys.

During an economic crisis, the reproduction sphere of the economy, which includes unpaid work in families and communities, organised

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1 King, R., & Sweetman, C. (2010). *Gender Perspectives on the Global Crisis.* Oxfam International Discussion Paper. Nairobi: Oxfam International.

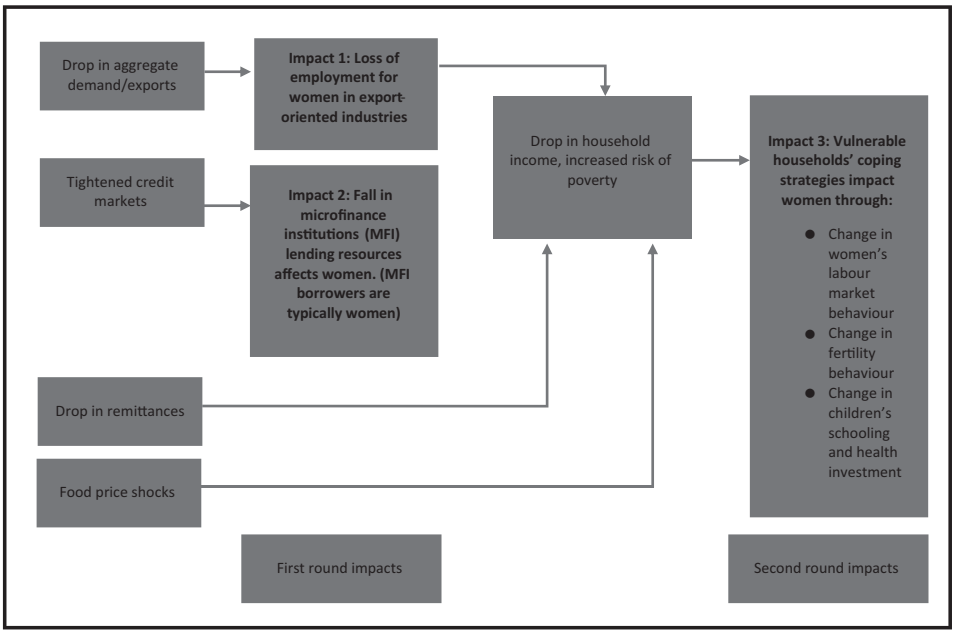
2 Shwetlena, S., Sinha N., & Buvinic M. (2010). *How Do Women Weather Economic Shocks? A Review of Evidence. Policy Research Working Paper 5496.* The World Bank Poverty Reduction and Economic Management Network. Gender and Development Unit. Washington, D.C.: World Bank.

unpaid volunteer work, and paid (but non-market) work in public services like health and education, is equally affected as other spheres of the economy are.[3] The reproductive economy is often excluded and invisible from standard analyses of the economy. Yet, it is crucial to include the same to comprehend the full effects of economic crises on the lives and livelihoods of women and men. Past experiences of economic crises indicate that the demand and need for both unpaid care work and paid work increases, and this sequentially increases the drudgery of unpaid care work.

While the burden of the current economic crisis in Sri Lanka falls on every citizen, women are among the most vulnerable to its impacts. This is because of their relative disadvantaged position in accessing resources, voicing their needs and

While the burden of the current economic crisis in Sri Lanka falls on every citizen, women are among the most vulnerable to its impacts.

Figure 7.2
Possible Transmission Channels for Impact of Economic Crises on Women



Source: Shwetlena, S., Sinha N., & Buvinic M. (2010). How Do Women Weather Economic Shocks? *A Review of Evidence.* Policy Research Working Paper 5496. The World Bank Poverty Reduction and Economic Management Network. Gender and Development Unit. Washington, D.C.: World Bank.

[3] Elson, D. (2010). Gender and the Global Economic Crisis in Developing Countries: A Framework for Analysis. *Gender & Development 18*(2), pp. 201–212.

wants (representation and decision making), and lack of opportunities for economic empowerment. Moreover, women being the primary caregivers at home, when an economic crisis spills over into the home sphere, they face additional burdens in meeting care needs with limited resources. These responsibilities further restrict women from participating in income-generating activities. Even though both women and men are affected by job losses during crises, evidence shows that the impact on women's labour force participation is more severe than for men. For example, the COVID-19 pandemic hit employed women harder than employed men in Sri Lanka. A higher reduction in the employed population and a higher increase in the economically inactive population for females were evident from available data. Similar labour market implications can be expected as consequences of the current economic crisis, given that more women are doing informal jobs which are more vulnerable to economic shocks and have weaker social protection coverage.

The recovery process also comes with gender implications. The possible austerity measures to overcome the crisis, such as tax increases, tightening of government expenditure, and limiting investments in health, education and care services, would result in unintended and adverse impacts on women, especially those who are already vulnerable to socioeconomic shocks (e.g. those who are employed in the informal sector and doing informal jobs, female-headed households, and have limited access to resources or social protection). In this setting, evaluating women's role and contribution in carrying out unpaid care work and how it affects their economic empowerment (Target 5.4) and ensuring women's effective participation and decision-making ability in every sphere of life (Target 5.5) are of utmost importance.

7.3 Unpaid Care and Domestic Work

Target 5.4 urges countries "to recognise and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies, and the promotion of shared responsibility within the household and the family as nationally appropriate."

Any direct care activity performed without payment that provides a nurturing service such as childcare, care for the elderly, sick or disabled to meet the needs of dependent persons can be identified as unpaid care work. In broader terms, any direct or indirect care activity performed without payment is considered unpaid care work. In this sense, childcare, elder care, cooking, cleaning, fetching water and firewood, and household chores can be regarded as unpaid care work if these are performed without

Age, gender, type of household structure, social class, geographical location, and children's presence determine the overall division of time between paid and unpaid work.

Table 7.2
Categories and Types of Care Work

		Children	Elderly	Sick, Disabled	Adults (Other Than Self)	Self
Unpaid work (Outside SNA)	Direct care	Changing diapers	Spoon feeding or bathing	Spoon feeding or bathing	Counselling	Visiting doctor, exercising
	Indirect care	Cooking, laundering, cleaning	Cooking, laundering, cleaning	Cooking, laundering, cleaning	Cooking, laundering, cleaning	Cooking, laundering, cleaning
Unpaid subsistence production (Inside SNA)	Direct care	Breastfeeding				
	Indirect care	Growing food for own consumption, collecting wood or carrying water	Growing food for own consumption, collecting wood or carrying water	Growing food for own consumption, collecting wood or carrying water	Growing food for own consumption, collecting wood or carrying water	Growing food for own consumption, collecting wood or carrying water
Informal market work	Direct care	Family day care: babysitting	Family day care; elder sitting	Informal but paid assistance in the home		
	Indirect care	Domestic servant: paid or unpaid family work in a small service enterprise	Domestic servant: paid or unpaid family work in a small service enterprise	Domestic servant: paid or unpaid family work in a small service enterprise	Domestic servant: paid or unpaid family work in a small service enterprise	
Paid employment	Direct care	Childcare worker, teacher, paediatrician	Elder care worker, gerontologist	Nurse, nursing aide, doctor	Counsellor, nutritionist, yoga instructor	
	Indirect care	School administrator, clerical, food services or janitorial	Nursing home administrator, clerical, food services or janitorial	Hospital administrator, clerical, food services or janitorial	Most paid jobs are not listed in other cells.	

Source: Folbre, N. (2006). Measuring Care: Gender, Empowerment, and the Care Economy. *Journal of Human Development*, *7*(2), 183-199.

expecting any payment in return. Even though recognised as work, these activities are not included in the system of national accounts (SNA). Some cases (e.g. activities like fetching water/fuel) may be theoretically included but are often not well documented or accounted for. Unpaid care work is also known as household production or non-market production and is usually done by women for the family members. Depending on circumstances such as income, market conditions and personal inclinations, these activities can be replaced by market goods or delegated to someone outside the household members as a paid service.[4] Table 7.2 displays the categories and describes the types of care work.

Age, gender, type of household structure, social class, geographical location, and children's presence determine the overall division of time between paid and unpaid work.[5] However, traditionally, unpaid care and domestic work are considered 'women's work', and women bear the greater responsibility to perform these tasks. Globally, women do 76.2 % of the global unpaid care work, which is three times more than unpaid care work done by men.[6] In Asia and the Pacific, women's share of unpaid care work rises to 80%. This inequitable gender-based allocation pushes women into 'time poverty' where they have little or no time to participate in activities outside the household, including paid work. As a result, their well-being is undermined, insecurities are generated, financial dependence is fostered, and options for decent work are limited, even restricting women to low-status, part-time jobs in the informal sector.[7] Involvement in unpaid care activities negatively affects women's ability to participate in paid work, thus leading to many gender disparities in the labour market such as gaps in employment outcomes, wages and pensions. In the rest of this discussion, both unpaid and domestic work are referred to as unpaid care work.

Involvement in unpaid care activities negatively affects women's ability to participate in paid work, thus leading to many gender disparities in the labour market such as gaps in employment outcomes, wages and pensions.

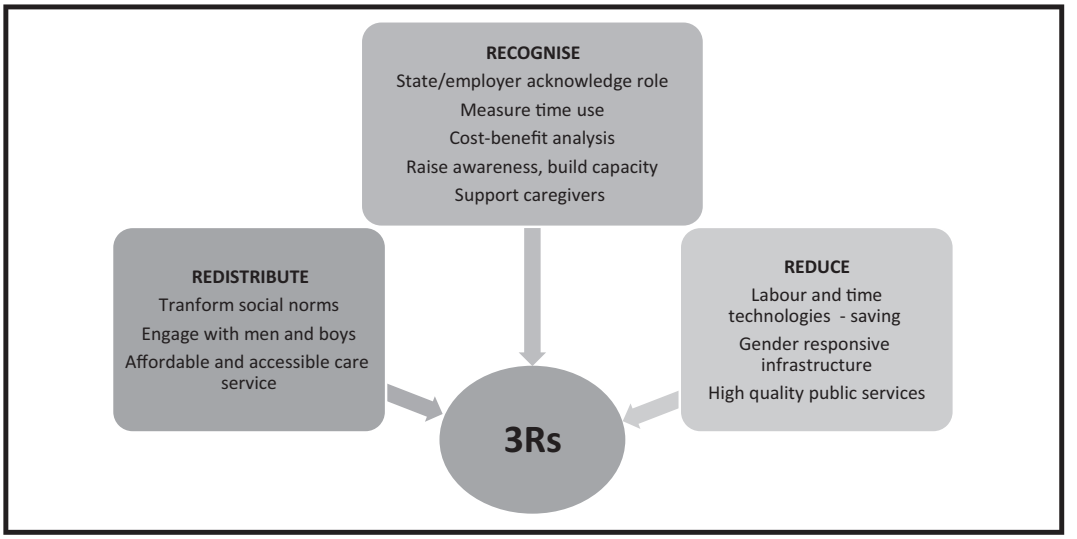
[4] Lourdes, B., Berik, G., & Floro, M. (2015). *Development and Globalisation: Economics as if All People Mattered.* London and New York: Routledge.

[5] Antonopoulos, R. (2009). *The Unpaid Care Work- Paid Work Connection.* Policy Integration and Statistics Departement. Geneva: International Labour Office.

[6] Addati, L., Cattaneo U., Esquivel V., & Valarino I. (2018). *Care Work and Care Jobs for the Future of the Decent Work.* Geneva: International Labour Organization.

[7] Swedish International Development Cooperation Agency. (n.d.). *Quick Guide to What and How: Unpaid Care Work – Entry Points to Recognise, Reduce and Redistribute.* Stockholm: Swedish International Development Cooperation Agency.

Figure 7.3
3Rs Approach - Three Interconnected Dimensions to Address Unpaid Care Work



Source: Organisation for Economic Co-operation and Development. (2019). *Enabling Women's Economic Empowerment: New Approaches to Unpaid Care Work in Developing Countries.* Retrieved April 15, 2022, from OECD: https://doi.org/10.1787/ec90d1b1-en

The issue of unpaid care work has three interconnected dimensions; recognition, reduction, and redistribution, also known as the 3Rs. Target 5.4 emphasises these 3Rs; recognition and valuation of unpaid care work (recognition) by providing public services, infrastructure, and social protection policies (reduction), and the promotion of shared responsibility at distinct levels – i.e. household, institutional, and national (redistribution) within the household to reduce and redistribute these tasks. For example, lowering women's time collecting water or providing alternatives for childcare is one such measure (Figure 7.3).

7.3.1 Recognising, Reducing and Redistributing Unpaid Care Work

The gendered and voluntary nature of unpaid care work largely contributes to its poor visibility in the economy and its exclusion from the SNA. Recognising and valuing unpaid care work by including it in national statistics are important for many reasons; it makes women's economic contribution statistically visible, makes unpaid work socially valued and appreciated, and provides a more comprehensive picture of the goods and services produced within an economy.

In recent years, methods and techniques such as time use surveys (TUS) have been developed to capture the amount of time spent on various activities by individuals. Unlike labour force surveys (LFS), a TUS captures paid work (market activities) as well as unpaid work (non-market activities) to generate a more comprehensive understanding of how people spend their time on diverse activities uncovering behavioural choices of individuals in time allocation (reference period, activity, time duration, number of episodes, and the context). Apart from that, a TUS also discloses discrepancies in time allocation on variances

related to sociodemographic characteristics like gender, age, and geographical location.

Given the nature of unpaid care work, finding the correct unit value of unpaid care work is problematic. Hence, a lack of agreement on the methodology of measuring and valuing unpaid care work persists. Various approaches such as an output-based approach (measuring the cost to purchase an unpaid care service in the market), an input-based approach (measuring and valuing labour inputs into unpaid care work), and other methods (such as opportunity cost, replacement cost) are used.[8] Collecting time-use data is costly, time-consuming and requires specific capacities compared to other surveys like LFS, and income and expenditure surveys. Therefore, not surprisingly, time-use data for developing countries is limited.

As depicted in Figure 7.3, labour and time, labour-saving technologies (e.g. washing machines and kitchen appliances), gender-responsive infrastructure facilities (by engaging women in infrastructure development, from the identification of priorities to their design and implementation) and providing high-quality public services are vital approaches in reducing the burden of unpaid care work borne by women.

Deep-rooted social norms and gender stereotypes form a society's perceptions and expectations of who is responsible for attending to care needs, who needs care and how that care should be delivered. Often across the globe, this is perceived as a responsibility of women. In most societies, women's burden of doing care work is taken for granted, and it has become an unquestioned part of daily living. In such contexts, initiatives encouraging behavioural changes and social norms are vital in redistributing unpaid care work. Redistribution should be done within the household and between households and society.

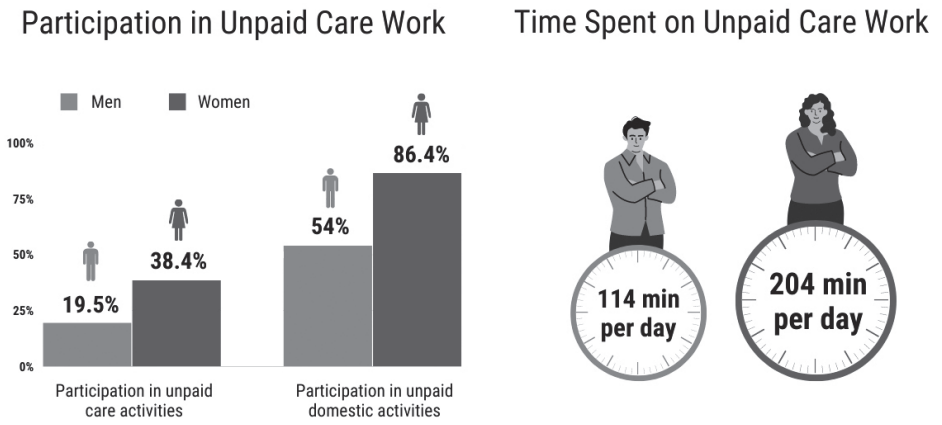
Evidence from literature affirms that unpaid care work by women tends to decline with the country's economic development level. This is mainly because of the reduction (through better and higher investments in technology and infrastructure) and the redistribution (through shifts in social norms and affordable and accessible care services) of unpaid care work burden borne by women.

7.3.2 Unpaid Care Work in Sri Lanka

The indicator proposed to measure progress in Target 5.4 is the proportion of time spent on unpaid care work by sex, location, and age group. Figure 7.4 below depicts the status of Sri Lanka for indicator 5.4.1 with the latest available data.

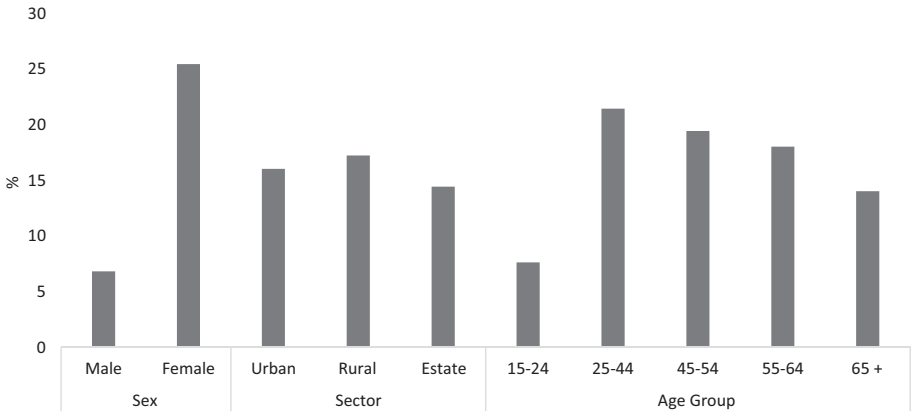
Reflecting the global context, Sri Lankan women's participation in unpaid care work is more than that of men. Participation rates in unpaid care activities and unpaid domestic activities by men were 19.5% and 54%, respectively. Women's participation rates were 38.4% and 86.4%, indicating a clear disparity in both activity categories. Moreover, a substantial difference is evident between the time spent by men and women on unpaid care work. While women spent 204 minutes per day on unpaid care activities, men spent only 114 minutes on the same (Figures 7.5 and 7.6). However, compared with the global and Asia-Pacific figures, the distribution of unpaid care work at the household level between women and men in terms of time spent indicates a better status for Sri Lanka.

[8] Suh, Jooyeoun., Dorji, Changa., Mercer-Blackman, Valerie., & Hampel-Milagrosa, A. (2020). *Valuing Unpaid Care Work in Bhutan.* ADB Economics Working Paper Series No. 624, November 2020. Manila: Asian Development Bank.



Source: Department of Census and Statistics, (2020). Sri Lanka Time Use Survey – Final Report - 2017.

Figure 7.4
Proportion of Time Spent on Unpaid Domestic and Care Work by Sex, Location, and Age Group, 2017

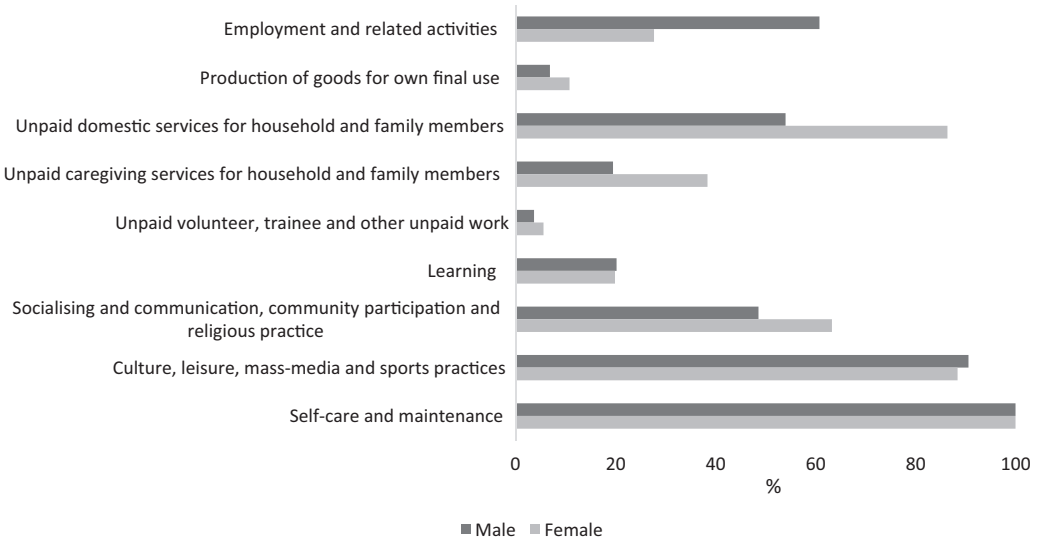


Source: Department of Census and Statistics. (2020). *Sri Lanka Time Use Survey – Final Report - 2017.* Battaramulla: Department of Census and Statistics.

Globally, women spend 265 minutes and men spend 83 minutes per day on unpaid care work. While women in Asia and the Pacific region spend 262 minutes on unpaid care work, men spend 64 minutes per day.[9] Figures 7.5 and 7.6 highlight dissimilarities in participation and time allocation related to unpaid care work and employment activities (paid work) between the two sexes. Men's participation and time allocation in paid activities are significantly higher than women's. In contrast, their participation and time allocation for unpaid care activities are much less than that of women. The opposite is true for women – i.e. less participation in market activities and greater participation in unpaid care activities. This implies a negative correlation between unpaid care work and labour market engagement.

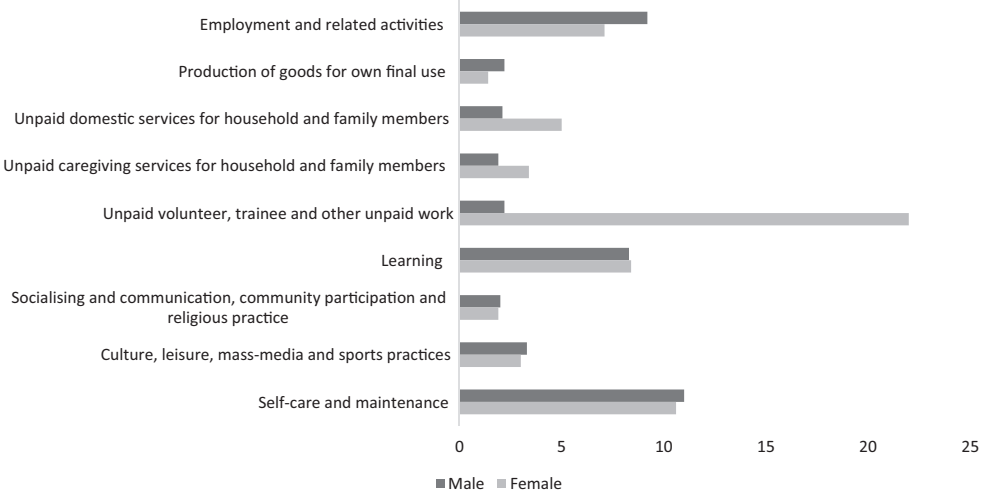
[9] Addati, L., Cattaneo U., Esquivel V., & Valarino I. (2018). *Care Work and Care Jobs for the Future of the Decent Work.* Geneva: International Labour Organization.

Figure 7.5
Participation Rates in Major Activity Categories, by Sex



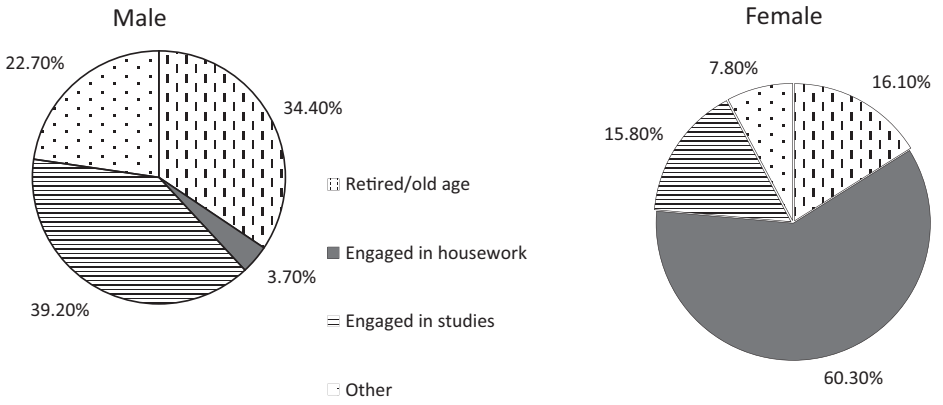
Source: Department of Census and Statistics. (2020). *Sri Lanka Time Use Survey – Final Report - 2017.* Battaramulla: Department of Census and Statistics.

Figure 7.6
Mean Actor Time (Hours) per Day Spent on Major Activity Categories, by Sex



Source: Department of Census and Statistics. (2020). *Sri Lanka Time Use Survey – Final Report - 2017.* Battaramulla: Department of Census and Statistics.

Figure 7.7
Reasons for being Economically Inactive, 2020



Source: Department of Census and Statistics. (2021). *Sri Lanka Labour Force Survey Annual Report 2020.* Battaramulla: Department of Census and Statistics.

The unpaid care work burden discourages women from engaging in income-earning activities. In Sri Lanka, 73.5% of the total economically inactive population are females.[10] The main reasons for being economically inactive are old age, studies and housework. Of the economically inactive female population, 60.8% have indicated household work as the reason for inactivity (Figure 7.7). This suggests that most women are unwilling to engage in economic activities due to their household burden. In contrast, merely 3.7% of men stated household work as a reason for inactivity. It also implies that more women who are burdened by unpaid care work may lack financial security due to being out of economic work.

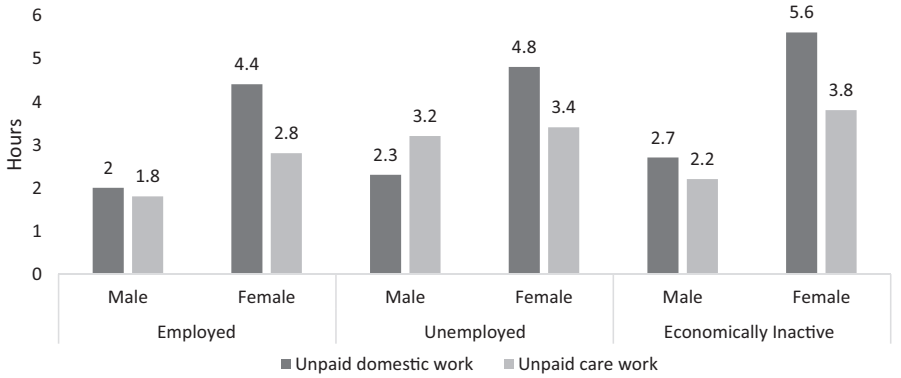
The disparity in unpaid care work responsibilities affects not only women's ability to enter the labour market but also holds negative repercussions on women who are already employed. Despite the labour market status, time spent on unpaid care activities is higher for women than men (Figure 7.8). This indicates the gendered nature of unpaid care work and uneven division of labour (care responsibilities and roles) within households. Moreover, a marginal difference can be noted in the time employed and unemployed females spend on unpaid care and domestic activities. This also points to the 'double burden' (the challenge of balancing employment and domestic responsibilities) faced by employed females. Economically inactive females spend more time on domestic and care work than employed and unemployed females and as shown in Figure 7.7, and is the main factor restraining them from participating in labour market activity.

Recognition

Generally, TUSs are the most accepted method to estimate unpaid care work. The Department of Census and Statistics (DCS) of Sri Lanka produced its first-ever TUS in 2017, but this survey was not done regularly. On the other hand, the DCS' LFSs have had issues recognising and measuring the time spent on unpaid care and domestic activities and misclassifying certain

[10] Department of Census and Statistics. (2021). *Sri Lanka Labour Force Survey Annual Report 2020.* Battaramulla: Department of Census and Statistics.

Figure 7.8
Mean Actor Time Spent in Unpaid Care Activities, by Labour Market Status



Source: Department of Census and Statistics. *(2020). Sri Lanka Time Use Survey – Final Report - 2017.* Battaramulla: Department of Census and Statistics.

activities.[11] Adding recovery questions, improving the survey implementation and harmonising questionnaire content can improve the LFS to capture unpaid care work more comprehensively. By doing so, quality and reliable data on unpaid care work can be generated regularly.

Reduction

Improved and better infrastructure enables the burden of unpaid care work to be reduced. Sri Lanka has given a high priority to developing infrastructure facilities and has had successes in providing basic infrastructure facilities to most. Yet, certain areas need improvements. For example, only 88.5% of households have access to safe drinking water, and 2.9% of households travel more than 500 meters to fetch drinking water.[12] Apart from these inadequacies, policies adopted to enhance infrastructure facilities give inadequate attention to their provision in a gender-sensitive manner. For example, even though policies on energy emphasise universal access to affordable and reliable energy, gender sensitivity is minimal in those policies in a context where 57.7% of households use firewood as their principal cooking fuel, and 56.2% of them (primarily women) spend time collecting firewood. Strategies such as energy conservation and energy efficiency approaches that include interventions in providing cooking fuel and technologies must be gender sensitive.[13] Likewise, such inadequate integration of gender dimensions into national policies can be observed in other sectors (e.g. transport, water, and sanitation).

Redistribution

Transforming social norms, engaging with men and boys, and providing affordable and accessible care services are critical approaches to redistributing unpaid care work. However, changing the patriarchal Sri Lankan culture with

[11] Discenza, A., Gaddis, I., Palacios-Lopez, A., & Walsh, K. (2021). *Measuring Women and Men's Work: Main Findings from a Joint ILO and World Bank Study in Sri Lanka.* Retrieved April 15, 2022, from World Bank: https://openknowledge.worldbank.org/handle/10986/36257

[12] Department of Census and Statistics. (2022). *Household Income and Expenditure Survey 2019.* Battaramulla: Department of Census and Statistics.

[13] Asian Development Bank. (2016). *Sri Lanka: Gender Equality Diagnostic of Selected Sectors.* Manila: Asian Development Bank.

its entrenched gender stereotyping is challenging, requiring sustained effort and time.

Engaging men and boys is the first step toward such a transformation. Family-friendly policies which encourage a more egalitarian division of responsibilities and roles between men and women within households play a vital role in redistributing unpaid care work.

In providing affordable and accessible care services, Sri Lanka has taken positive steps forward. For example, in the context of a growing need for childcare and gaps in existing childcare facilities, the need to provide affordable and quality childcare is recognised. In addition, specific actions need to be taken to redistribute the burden of unpaid care work at the national level.

In terms of recent efforts in recognising, reducing and redistributing unpaid care work by the government of Sri Lanka (GOSL), the National Policy for Child Day Care Centers (Draft) in 2019 and the National Policy on Early Childhood Care and Development (Draft) can be regarded as positive steps. The former aims to ensure the country's availability of quality, affordable and accessible daycare services. It encourages parents (particularly mothers) to accept or return to employment by making daycare services available. The National Policy on Early Childhood Care and Development has paid attention to providing affordable and quality childcare. Both these documents are still at the draft stage, and it is vital to take measures to accelerate the policy formulation process and bring these to the implementation stage. The Budget Speech 2019 identified unpaid care work as a key reason for women to leave or never enter the labour force. It offered redistributing arrangements by proposing the establishment of daycare facilities by commercial entities, the private sector and schools.

Female leadership benefits a country as female leaders tend to promote policy agendas focused on inclusivity and empowerment.

7.4 Empowering Women

Target 5.5 aims to ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic, and public life. Female leadership benefits a country as female leaders tend to promote policy agendas focused on inclusivity and empowerment. Female leaders outperform their male counterparts in complex environments requiring profound cooperation and collaboration. This is not only visible at the national leadership level, but similar evidence can also be found in the corporate sector, where female leaders in the top-ranked corporations have positively affected organisational performance.

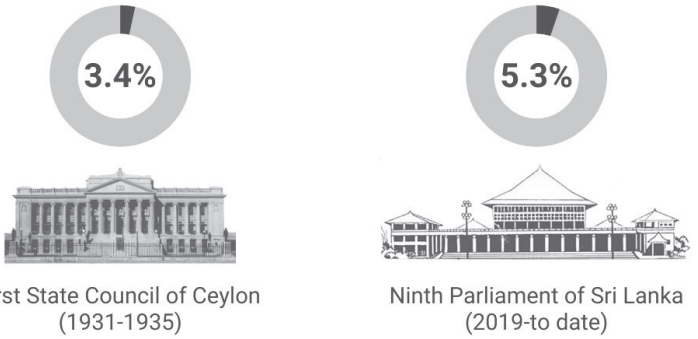
Efficiency reasons, as well as equity reasons, allow for adequate and equal economic participation and leadership. The efficiency reasons are rooted in the fact that gender inequality is an obstacle to achieving development goals. In certain circumstances, gender inequality is an obstacle to boosting productivity, exports, and national income. For instance, some estimates suggest that Sri Lanka could add 14% (United States Dollars (USD) 20 billion (Bn)) to its annual gross domestic product (GDP) by 2025 by increasing female labour force participation (FLFP),the number of paid hours women work and adding women to higher-productivity sectors.[14] This way, the average returns to women from cognitive skills would increase by 75% if women who are inactive in unpaid work or unemployed were to engage in paid employment in Sri Lanka. Moreover, women who are better educated, healthier and have greater control over household financial resources through their earnings or cash transfers are also more likely to invest in ways that benefit their children's health and education. The lack of women in positions of political power has a cost for society, too, as women often have various priorities and can be more effective where it matters. For example, a cross-country study found that greater representation of women in parliaments led to higher expenditure on education as a share of GDP.[15]

7.4.1 Sri Lankan Women in Decision-Making Positions

Gender inequality in Sri Lanka has been declining in education and health attainments. The same, however, is yet to be seen in the participation and equal opportunities in economic and political spheres (Table 7.3).

Political and Judicial Participation and Leadership by Women - Despite Sri Lanka's commendable progress in achieving many human development indicators, the country has failed to make notable improvements in involving women in national decision-making processes. Despite the election of two female premiers post-1948,

Female Political Representation at the National Level



[14] Mckinsey Global Institute. (2018). *The Power of Parity: Advancing Women's Equality in Asia Pacific.* United States: Mckinsey Global Institute.

[15] Taliento, L., & Madgavkar, A. (2016). *Power with Purpose: How Women's Leadership Boosts the Economy and Society.* Retrieved April 20, 2022, from Devex: https://www.devex.com/news/power-with-purpose-how-women-s-leadership-boosts-the-economy-and-society-87845

Table 7.3
Sri Lanka's Performance in Global Gender Gap Index (GGGI)- 2021

Sub-Indices	SL Rank*	SL Score	Global Average
Economic participation and opportunity	**132**	**0.547**	**0.583**
Labour force participation rate, %	139	0.475	0.655
Wage equality for similar work, 1-7 (best)	77	0.659	0.628
Estimated earned income, international USD 1,000	134	0.384	0.494
Legislators, senior officials, and managers, %	107	0.351	0.349
Professional and technical workers, %	86	0.919	0.755
Educational attainment	**88**	**0.988**	**0.950**
Literacy rate, %	86	0.979	0.897
Enrolment in primary education, %	125	0.982	0.755
Enrolment in secondary education, %	1	1	0.950
Enrolment in tertiary education, %	1	1	0.927
Health and survival	**30**	**0.98**	**0.957**
Sex ratio at birth, %	1	0.944	0.925
Health life expectancy, years	41	1.060	1.029
Political empowerment	**90**	**0.167**	**0.218**
Women in parliament, %	149	0.057	0.312
Women in ministerial positions, %	145	0.038	0.235
Years with female/male head of state (last 50)	12	0.316	0.144
GGGI	116	0.670	0.677

Note: * Rank out of 156 countries.
Source: World Economic Forum. (2021). *Global Gender Gap Report 2021. Geneva:* World Economic Forum.

female participation in politics has been low, and progress in having female representation in politics is also disappointingly slow. In the first State Council of Ceylon (1931-1935), two women representatives accounted for 3.4% of the total representation. Today, the Ninth Parliament of Sri Lanka (2019-to date) has only 12 women representatives (or 5.3% of the total members), of which three are from the national list. Moreover, the only two female state leaders in Sri Lanka belonged to a politically affluent family. Though it suggests some progress in gender equality in leadership, it does not apply to women belonging to non-political families and aspiring to come into leadership for the most part.

Apart from gender, social class and influence are operative factors for women in political leadership. In this context, the Local Authorities Election (Amendment) Act, No. 16 of 2017, was enacted to increase female political representation. The Act ensures that 25% of women be elected to each local council. Further, it also requires the Commissioner of Elections to publish the specific number of women candidates nominated in each local authority. The first local government election under this Act was held in February 2018. The results indicated that women made up 23% of local government representatives nationwide, and encouragingly more than 95% of Sri Lanka's 341 individual local authorities were

able to meet the 25% quota following the election. Yet, there are some areas of concern regarding this Act which need attention to ensure effective implementation and outcomes. The absence of a proper system or criteria for selecting women candidates, the exemptions provided to smaller political parties in fulfilling the women's quota and the possibility of party leaders exerting undue interference in choosing the representatives are such areas of concern.

Sri Lankan women face obstacles at the household, community, and national levels when entering and engaging in politics. The general acceptance is that politics, ideologically and practically, is a legitimate sphere for men rather than women. Often politics is perceived as a male domain, and a woman entering this domain is viewed as transgressing her role in society or incapable of doing a decent job. Lack of recognition for female leadership, negative self-attitudes, lack of interest, mobility restrictions, uneven distribution of family responsibilities and cultural limitations prevent women from taking active leadership roles at the community level.[16] Additionally, women involved in active political leadership face barriers such as lack of resources, violence, and discrimination within political parties.

Notably, a steady and significant increase in the number of females in the judiciary system in Sri Lanka is seen, where the number of female judges in the trial and appellate courts has grown in recent years. During 2010-2015, all the three highest positions in the Sri Lankan judiciary system were held by women – i.e. the Attorney General, the Legal Draftsman, and the Chief Justice. However, this pace of progress is not on par with the extremely high percentage of women who qualify as lawyers each year, indicating several general barriers and constraints for women.

Figure 7.9
Economic Participation and Decision-making Positions: Male vs Female 2020
Sri Lanka



Notes: 1 - Percentage contribution to the total employment category.
2 - Percentage contribution to the total employment status.

Source: Department of Census and Statistics. (2021). *Sri Lanka Labour Force Survey Annual Report 2020.* Battaramulla: Department of Census and Statistics.

[16] Madurawala, S. (2018). *Lead Like a Girl: Empowering Sri Lanka's Female Leadership.* Retrieved May 02, 2022, from Talking Economics: https://www.ips.lk/talkingeconomics/2018/02/06/lead-like-a-girl-empowering-sri-lankas-female-leadership/

Economic Participation and Decision Making – Economic participation indicated by labour force participation is low for Sri Lankan women, which remains in the range of 30-35% for a considerable time. In addition to the low economic participation of females, their presence in decision-making positions is also extremely low (Figure 7.7).

Supply-side factors, as well as demand-side factors, constrain FLFP. Lack of skills, limited employment opportunities and options available for women, care responsibilities, gender wage gaps, safety and mobility issues, social norms, and employers' perception of recruiting female employees for certain types of jobs (jobs that are accepted as masculine jobs) are some barriers that prevent women from entering the labour market. For women who are already employed, conditions like 'glass ceilings'(where a qualified person is precluded from career advancement at a lower level within the hierarchy of their organisation due to discrimination most often based on sexism or racism) and 'sticky floors' (biased employment pattern that keeps workers, mainly women, in the lower ranks of the job scale, with low mobility and invisible barriers to career advancement) prevent them from taking leadership and decision-making positions.

The low FLFP is further diminished at higher rungs of the management hierarchy. As depicted in Figure 7.9, the female share in decision-making positions in the labour market is meagre in Sri Lanka. Diverse perspectives and talents can be incorporated into boards by maintaining a gender balance at higher decision-making levels. Yet, women are acutely under-represented on the boards of companies in Sri Lanka. As per the GGGI, only 8.8% of the firms in Sri Lanka have top female managers. Moreover, only 9.5% of board directors on the Colombo Stock Exchange (CSE) listed companies are women.[17] These numbers are low compared to the neighbouring states of India, which has 12% of women board members and Bangladesh, with 17%.

Intending to address the issue of low female representation at higher levels of decision-making, the 2019 Budget proposed a sequenced approach to address this. The Securities and Exchange Commission (SEC) was encouraged to implement a proposal to introduce mandatory



[17] International Finance Corporation. (2021). *IFC Supports First Sri Lanka Chapter of Women Corporate Directors to Promote Diversity in Boardroom.* Retrieved May 02, 2022, from International Finance Corporation: https://pressroom.ifc.org/all/pages/PressDetail.aspx?ID=26733

representation of women on corporate boards by (i) SEC to introduce a voluntary target of 30% of women on director boards of companies listed on the CSE and for all listed companies to disclose in their Annual Reports the percentage of women on their boards (ii) by 31 December 2020, all listed companies that are unable to meet the 30% voluntary target were required to disclose reasons for being unable to do so, (iii) by 31 December 2022, all listed companies to have at least 20% of board seats occupied by women, and (iv) by 31 December 2024, all listed companies to have at least 30% of board seats occupied by women. More recently, the Women Corporate Directors Foundation (WCD), the largest organisation of women corporate board members globally, launched its first local chapter in Sri Lanka to promote boardroom diversity and establish a network of existing and prospective women directors.

7.5 Conclusions and Policy Implications

7.5.1 Unpaid Care Work

The discussion indicates that unpaid care and domestic responsibilities are key barriers for women to participate in market activities, thus hindering their economic empowerment. Further, unpaid care work aggravates pressure on women during an economic crisis. Centuries-old social norms and perceptions, asymmetric division of labour at the household level, issues in accessibility and affordability of technologies, and lack of gender sensitivity in infrastructure policies and programmes make unpaid care work a weighty burden on women. The above also contribute to gendering care work, making unpaid care work less visible and less recognised.

Prioritising data collection to help improve the recognition of unpaid care work: Sri Lanka needs to produce more frequent data on unpaid care work as an initial step in recognising unpaid care work. In this regard, improving the existing annual national surveys (e.g. LFS) can be carried out as a short-term measure as these can be expedited without many additional resources. The DCS should be responsible for frequently producing reliable and comprehensive data that would help better recognise unpaid care work (e.g. gender-disaggregated data, time use data). In the long run, more detailed and specific data collection methods such as TUS can be employed to generate more comprehensive data on unpaid care work. Furthermore, it is also essential to analyse such data and ensure the findings are conveyed to policymakers and made available to the public.

Providing affordable and high-quality childcare options: This is essential not only for employed women but also for those females who have the potential to be employed (e.g. those who are currently economically inactive due to childcare issues). The availability of affordable childcare would reduce the double burden employed females face and encourage potential females to enter the labour market. Several childcare options are available such as employer-supported childcare, childcare provided by a third party (either private or government), and community/non-governmental organisations (NGOs) supported childcare centres. For example, Turkey's labour laws and regulations obligate firms employing between 100-150 women workers (married or single) to provide a nursing room for the essential needs of their children under the age of one. Moreover, their laws compel employers with more than 150 female workers to assist their employees by

establishing or subcontracting a childcare unit to care for children under six.

However, it is preferred that private sector-mandated childcare provision is supported by tax incentives and is preferably not linked to the number of female employees. Otherwise, those requirements would discourage employers from hiring women. Further, options such as longer school days or expanded pre-school hours, which are found to impact FLFP positively, can be introduced and implemented in the short run without requiring additional resources when a country's resources are constrained. Similar proposals were proposed in the Budget 2019, yet these were not implemented. Apart from enhancing FLFP, quality childcare options ensure the safety and well-being of children. As an alternative for providing childcare facilities, options such as providing childcare subsidies and tax benefits (e.g. Child Care Subsidy and Family Tax Benefit in Australia and Canada Child Benefit scheme) also reduce the burden of childcare. Even though implementing such programmes is not viable for Sri Lanka under its current fiscal constraints, these options can be considered in the long term.

Making care a priority in economic policymaking and budget setting: Having specific budget lines to support and expand the types of public services or programmes that significantly release households' unpaid care workload, recognising the contribution of carers by adding awareness-creation elements, coordinating across government sectors to build on potential collaborations and ensuring that the needs of carers are addressed are other measures. These long-term strategies can be adopted to make care a national priority.[18] For example, Uruguay established a National Integrated Care System in 2015 and approved a National Care Plan for 2016-2020. Those initiatives facilitate the implementation and coordination of care policies for adults with specific care needs, such as persons with disabilities, the elderly and small children. The national care system aims to be the fourth pillar of the country's social protection system, along with health, education, and social security.

Women's leadership at various levels generate many benefits. At the national level, women's leadership promotes policy agendas focused on inclusivity and empowerment. Much backing is available for policies that foster increased access to education, employment, and economic participation by women leaders. At the business level, having females as board members correlates with the better financial performance of organisations than those with low female representation. Yet, many constraining factors prevent women from taking leadership positions in their political, economic and public life. These constraining factors are visible at diverse levels (family, community, school and labour market).

7.5.2 Political Participation

Adopting affirmative action to ensure higher female representation in politics: In this regard, allocating quotas for females has proven to increase female representation. Sri Lanka's experience with local government election results also confirms this. A similar system is proposed for provincial council elections but has not yet materialised. The possibility of introducing a quota system at the national level (i.e. when selecting parliamentarians) needs to be explored while addressing the issues encountered in selecting

[18] Organisation for Economic Co-operation and Development. (2019). *Enabling Women's Economic Empowerment: New Approaches to Unpaid Care Work in Developing Countries.* Paris: OECD Publishing.

female representatives for local governments. Options such as reserved seats and legislative and voluntary party quotas can be considered within the constitutional provisions. For example, Pakistan adopts a reserved quota system. At the same time, Nepal has a legislative quota system from which the two countries can secure female representation at 20.5% and 33.6%, respectively, as of early 2022.

Providing financial assistance to women candidates: Given the relatively disadvantageous position of female candidates in terms of financial resources and the absence of campaign finance regulations, providing financial assistance to women candidates is vital. Various options can be adopted in assisting women candidates financially; improving legal frameworks to ensure equitable resource allocation and transparency in campaign financing, adopting public funding mechanisms that proactively promote women candidates (such as requiring political parties to reserve a particular portion of public funds specifically for women candidates) and promoting gender-positive activities, and providing financial incentives to political parties if they run or elect women candidates.[19]

Brazil, for example, has legislated a law combining financial-related incentives and penalties to increase women's political representation. Brazil's National Election Law requires that political parties allocate at least 5% of party funds to air public awareness creation programmes on women's political representation and between 5-15% of party funds to finance women's campaigns explicitly. Parties that fail to meet these requirements are mandated to allocate 12.5% of their total funds to initiatives aimed at promoting women's participation.

7.5.3 Economic Participation and Decision Making

Creating more and better jobs for females: Women in Sri Lanka remain an untapped economic resource, and their active participation in the labour market is significantly low. Moreover, most currently employed females are doing informal jobs, leaving them in a dire situation regarding job security and social protection. Creating more and better job opportunities for women is the starting point of ensuring better economic participation by women.

Ensuring economic empowerment would also make women more resilient in facing future economic shocks. While guaranteeing that existing policies related to female employment are properly implemented, new policies and programmes should be introduced to enhance FLFP in the long run. In doing so, prioritising rural areas is important as more women in the rural sector are economically inactive than women in other sectors. Many employed women in rural areas engage in agricultural activities as 'contributing family members'. Setting up industries in proximity to markets and using resources available in the villages have great potential to attract women in those areas into the labour market. The government and other parties like the private sector, international development partners and community organisations can take diverse initiatives to create more and better jobs for females. The International Finance Corporation, for example, completed a project 'She Works Sri Lanka' recently. This programme has led to a 12% growth in the number of women employed by 15 of the country's leading companies, equating to over 12,000 more women in the workforce.

[19] Athukorala, S., Ramanathan, S., Applegate, M., & Bibler, S. (2021). *Women's Political Representation in Sri Lanka: Electoral System Analysis and Recommendations.* Arlington: International Foundation for Electoral Systems.

Achieving gender equality and empowerment should be treated as a great opportunity and strategy to overcome the current economic crisis and an approach to creating a more resilient economy that can effectively absorb future financial shocks.

Allocating quotas, building networks, and developing skills: Experience from other countries affirms that allocating quotas for females (either mandatory or voluntary) is a key and effective way to enhance their representation in the boardrooms. Norway, the first country to adopt a gender quota requiring a 40% female board representation in public limited and state-owned companies, showed impressive growth in female representation in board rooms (it rose from 6% in 2002 (the year before adoption) to 40% in 2008). Sri Lanka's 2019 Budget proposed a sequenced approach to ensure a quota for females on boards of listed companies. Even though some initial steps have been taken, the progress is slow, mainly due to the lack of qualified females. Lack of solid networks (both social and professional) and technical skills are found to be the most critical factors that prevent aspiring females from becoming leaders in the business sector.[20] Companies can adopt strategies like creating networking opportunities targetting females, introducing mentorship programmes, and providing on-the-job training in collaboration with universities and professional and industry bodies to recruit and train female talent to overcome such barriers as medium-term solutions. In the long run, they should foster and adopt gender-sensitive organisation cultures and management styles. In the long term, the government should also aim at refuting regressive social norms such as gender stereotyping of leadership, promoting role models and awareness creation.

Ensuring gender equality and empowerment may quickly get side-lined or be neglected entirely in the context where Sri Lanka is experiencing a severe economic meltdown. A risk exists of overlooking the importance of ensuring gender equality by policymakers and the public, mainly due to ongoing resource constraints. Conversely, achieving gender equality and empowerment should be treated as a great opportunity and strategy to overcome the current economic crisis, as well as an approach to creating a more resilient economy that can effectively absorb future economic shocks.

[20] International Finance Corporation. (2019). *Realising Sustainability Through Diversity: The Case for Gender Diversity Among Sri Lanka's Business Leadership*. Washington, D.C.: International Finance Corporation.

8. Migration and Remittances in Support of Economic Recovery

8.1 Introduction

For decades, Sri Lanka's development process has benefitted immensely from migration and related remittances. The coronavirus (COVID-19) pandemic and the country's subsequent social, economic and political crises are seeing a renewed push by Sri Lankans to seek better economic opportunities abroad. The domestic economic upheavals and the motivation to seek greener pastures are being pursued via both regular and irregular channels as the local economy struggles with declining remittances owing to government policy flaws in economic management.

As Sri Lanka prepares to deal with the economic crisis and plan for recovery, the role of migration and related remittances (M&R) in the development process requires careful analysis. The nexus between M&R and development can be bi-directional, where M&R has the potential to impact development. Similarly, development has the potential to impact M&R. Additionally, this nexus is multidimensional, where development along the various dimensions of political, social, and economic processes of countries of origin and destination influence how, where and when migration occurs. Therefore, consideration of migrants and migration in supporting development cannot be ignored.[1] Indeed, in this context, migration forms an essential cross-cutting issue in the 2030 Agenda of the Sustainable Development Goals (SDGs) too, which recognises it as a powerful driver of sustainable development.

For Sri Lanka, the critical focus of M&R in the immediate recovery process is to increase departures for labour migration and thereby increase remittances. This chapter examines recent developments to offer strategic recommendations to gear policies on M&R on a more sustainable path.[2] The chapter details how migration is integrated into the SDGs, exploring the nexus between migration and SDGs in the Sri Lankan context. These are examined around SDG Target 10.7 (which calls on countries to facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies), and Target 10.c (reduce transaction costs for migrant remittances). In doing so, the recent trends and issues in M&R, as well as the merits and demerits of existing labour migration and remittance policies in the country, are explored.

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[1] This is based on IPS's (forthcoming) *Migration & Development: Mainstreaming Migration into Development Strategies of Sri Lanka. Assessment Report 2021* for the International Organization for Migration (IOM).

[2] The study purposively collected evidence from social media sites namely Facebook, Twitter, and YouTube using the keywords remittances, migration, Hawala, Undiyal etc., and extracted self-reported views in posts and comments. Details of these posts and comments can be provided upon request.

8.2 Dissecting Migration in Crisis

Returns and Departures

Sri Lanka descended into an economic crisis hot on the heels of the COVID-19 pandemic, which saw the return of a large number of migrant workers due to various reasons, including pandemic-related lay-offs and contagion-related fears. By 2021, over 90,000 Sri Lankans are said to have returned.[3] However, weak reintegration efforts and the poor economic conditions in Sri Lanka saw many of these returnees struggle to find employment or livelihoods. For some such returnees struggling to reintegrate, re-migration is an option. However, while the global economic downturn and the rising cost of migration created a lag in labour migration departures, be it re-migration or first-time migration, current statistics reflect a growing momentum. By the first half of 2022, departures crossed 138,789 in total, reflecting pre-pandemic levels, while the issuance of new passports passed 75% of the total issued during the entire 12 months in 2021.

Opportunities and Labour Migration

Comparing registered departures in 2019 (to reflect the normal pre-pandemic context) and 2021 shows some interesting nuances. The overall decline in departures in 2021, relative to 2019, was 40%. However, a significant gap is observed in male and female departures during the early part of the crisis, as seen by the increase in the share of departures of male migrant workers in 2021 (Table 8.1). Similarly, huge disparities remain across skilled groups for departures before and during the crisis. For instance, low-skilled groups such as female domestic

Table 8.1
Labour Migration Trends in 2019 and 2021

	2019		2021		2021 Growth Relative to 2019
	No.	%	No.	%	%
Total migrants	203,186		121,795		-40
Females	80,985	39.9	41,125	33.8	-49
Males	122,201	60.1	80,670	66.2	-34
Placed by licensed agents	69,379	34.2	42,012	34.5	-39
On own	133,807	66.9	79,783	65.5	-40
Professional	9,861	4.9	8,309	6.8	-16
Middle-level	5,725	2.8	4,216	3.5	-26
Clerical	9,163	4.5	6,495	5.3	-29
Skilled	62,711	30.9	39,971	32.8	-36
Semi-skilled	2,950	1.5	1,908	1.6	-35
Unskilled	51,188	25.2	31,497	25.9	-38
Female domestic workers	61,489	30.3	29,399	24.1	-52

Source: Central Bank of Sri Lanka (2021). *Annual Report 2021.* Colombo: Central Bank of Sri Lanka.

[3] U.S. Department of State. (2021). *Trafficking in Persons Report.* Washington, D.C.: United States of America Department of State.

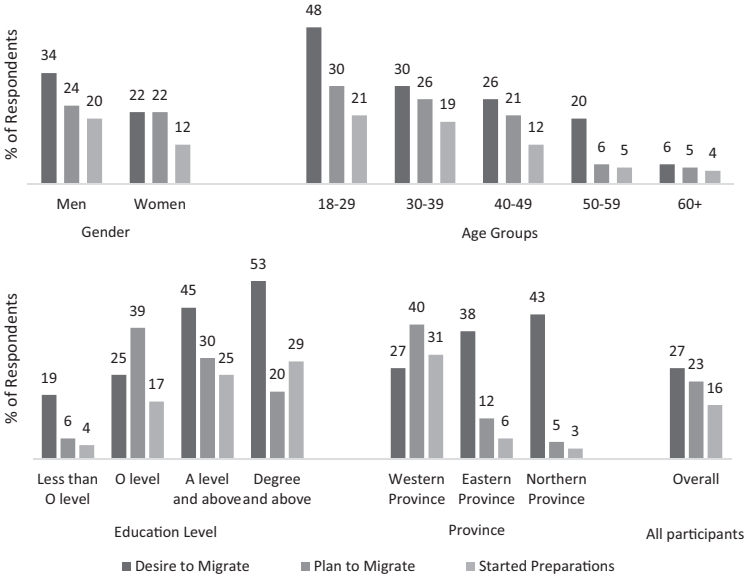
workers and unskilled workers experienced more significant declines relative to a smaller decline experienced by professional workers. This points to added difficulties for women and those with low skills in the aftermath of the pandemic. As previously mentioned, there could be added challenges in securing employment opportunities for such workers partly due to the economic slowdown in the destination countries and the complex health-related procedures. A rise in the initial cost of migration may also be a factor that affected the drop in departures of women and less skilled workers.

Dissatisfaction and Intent to Migrate

Similarly, the intention to migrate (for any purpose – for employment or else) was highly nuanced in 2021. As found in the Sri Lanka Opinion Tracker Survey (SLOTS), 27% of Sri Lankans would like to emigrate if they had the chance, with the young and the educated wanting to migrate the most.[4] As indicated in Figure 8.1, age appears to be negatively correlated with desire, planning and preparation for migration. In contrast, those in the age group of 18-29 indicated the highest intention to migrate. This desire to migrate is consistent with the limited employment opportunities in Sri Lanka for those in this age group. Specifically, in recent years, an increasing trend has been noted in youth unemployment which has risen to over 26.5% in 2020 and 2021 with the onset of the COVID-19 pandemic and the subsequent economic downturn in the country.[5]

Similarly, across education groups, the more educated indicated a greater desire, as well as

Figure 8.1
Percentage of Sri Lankans Desiring, Planning and Preparing to Migrate in 2021



Source: Institute for Health Policy. (2021, November). *Increasing Numbers of Sri Lankans Want to Migrate, especially Youth and Disenchanted Government Voters,* SLOTS Report #2021-01.

[4] Institute for Health Policy. (2021). *Increasing Numbers of Sri Lankans Want to Migrate, especially Youth and Disenchanted Government Voters,* SLOTS Report #2021-01.

[5] Central Bank of Sri Lanka (2021). *Annual Report 2021.* Colombo: Central Bank of Sri Lanka.

having taken steps to migrate. In addition to the young age groups and the highly educated, men and those living in urban settings were the most likely to consider migration in 2021. Besides, those residing in the Western, Eastern, and Northern Provinces indicated a greater interest in migrating. However, those living in the Western Province were much more likely to plan and prepare for migration than those in the Eastern and Northern Provinces. This can be linked to the higher levels of income in the Western Province and the associated capacity to bear the initial cost of migration.

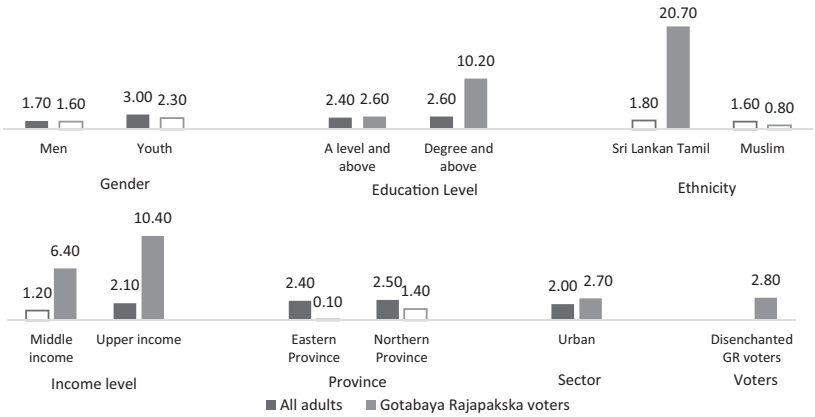
Overall, the apprehensions of many to remain in the country may be further heightened by the increasingly uncertain outlook for the economyWeakened prospects for standards of living may encourage people to consider foreign employment as an alternative to being employed in the domestic labour market due to the risk of insecure employment and unpredictable earnings.

Besides socioeconomic reasons, many are considering migration due to political factors and related instability, as suggested by the SLOTS survey. The high dissatisfaction among citizens about the country's political leadership is a likely contributor to the increased desire to migrate – reflecting wider despair about the efficacy of the political system to offer change for the better. In this context, it is unsurprising that youth are three times more likely to migrate than other age groups. Strikingly, the relative influence factors for emigration were more prominent among adults who voted for Gotabaya Rajapaksa in 2019 (Figure 8.2). These findings point to the worsening socioeconomic and political conditions in Sri Lanka being a vital driver of the desire to migrate. Notably, the gendered and skills-based dynamic in individuals' migration decisions have implications on safe and regular departures for foreign employment.

Irregular Migration and Vulnerability

In addition to the above discussed Sri Lanka Bureau of Foreign Employment (SLBFE) registered migrants, probably a substantial number depart outside SLBFE registration. Connecting to the previous finding of gendered

Figure 8.2
Factors Affecting the Desire to Migrate



Note: The coloured bars are statistically significant at the 10% level, and hollow bars are not statistically significant. See source for details.

Source: Institute for Health Policy. (2021, November). *Increasing Numbers of Sri Lankans Want to Migrate, especially Youth and Disenchanted Government Voters,* SLOTS Report #2021-01.

Combatting human trafficking and migrant smuggling on the pretext of providing migration opportunities to desperate and vulnerable potential migrant workers needs urgent attention.

and skills-based implications on safe and regular departures for foreign employment, it is likely that female, youth and low-skilled workers who found it challenging to migrate or survive in Sri Lanka during the crisis resorted to irregular migration for foreign employment. Confirming current trends, previous studies identify that irregular migration from Sri Lanka is associated with economic factors, including inadequate livelihoods and income earning opportunities, low skills levels, and limited job market information.[6]

The suspected rise in irregular migration has also been reflected in recent media reports. Forging documents such as visas and passports is one mode employed by individuals wishing to use standard travel options by posing as regular migrants. Further, reports of human smuggling attempts or services that facilitate irregular migration have increased. These tend to deal with sea travel, most often in vessels destined for fishing activities for neighbouring countries such as India or more distant countries such as Australia. By mid-2022, multiple raids and arrests had been made.[7] Apart from arrests within Sri Lankan borders or waters, some have gone as far as their final destination; some who had left northern Sri Lanka had reached the southern shores of India, while the Australian government repatriated two groups of 12 and 15 Sri Lankans in May and June 2022, respectively. The arrests and repatriations only reflect the tip of the iceberg in terms of irregular migration, as countless would have been abandoned, exploited or abused by traffickers and smugglers during the passage, or some migrants may even have reached their destination unnoticed. As such, during this economic crisis, combatting human trafficking and migrant smuggling on the pretext of providing migration opportunities to desperate and vulnerable potential migrant workers needs urgent attention.

8.3 Holding Remittances to Ransom

Remittances are reputed to be counter-cyclical. As such, Sri Lanka was poised to benefit from foreign remittances during the economic crisis of 2022. However, ad hoc policies adopted to

[6] International Labour Organization. (2017). *IOM Country Strategy 2018-2020.* Colombo: International Labour Organization.

[7] These include the arrest of eight boats with 351 migrants on board in May 2022 off the Eastern coast, 67 people in the waters off Trincomalee, a boat with 26 illegal migrants in the Southern seas, 19 in a boat off the Western Province, 15 in a boat off the Western coastal town of Marawila, and 76 from Chilaw. See EconomyNext. (2022). *Sri Lanka Sees More Boat People Events as Economic Crisis Worsens.* Retrieved May 10, 2022, from EconomyNext: https://economynext.com/sri-lanka-sees-more-boat-people-events-as-economic-crisis-worsens-95940/

manage macroeconomic imbalances created a unique situation where formal remittances were held for ransom, resulting in remittances deviating from their inherent counter-cyclical nature during the crisis. However, careful examination of the context reveals interesting dynamics in the foreign exchange and remittance markets that led to this.

Discouraging Rules

The various rules and regulations introduced to boost foreign currency supply in the domestic market were counterproductive in encouraging remittances. On the one hand, the mandatory foreign currency conversion rules created confusion, resulting in the forcible conversion of foreign exchange savings made up of remittances. Specifically, starting from February 2021, the Central Bank of Sri Lanka (CBSL) issued rules about the requirement to convert a share of merchandise export proceeds within a specific period, which was later expanded to cover earnings from the services export sector. Here, although the CBSL underscored that "remittances by Sri Lankan expatriates, which are not considered as services exports, will not be subjected to these rules,"[8] operationalisation of this was confusing, given that the purpose of remittances into personal foreign currency accounts (PFCAs) was not necessarily apparent at all times. Moreover, PFCAs could receive both worker remittances and payments for trade-in services. As a result of this confusion, worker remittances were unduly converted, while many received correspondence from commercial banks requesting conversion. On the other hand, the subsequent rules to include trade in services discouraged inward remittances earned by digital migrants. For instance, according to the aforesaid regulations, 100% of salaries earned by freelancers and others for their services provided to foreign companies should be converted into Sri Lankan Rupees (LKR). As such, those with means either delayed requesting their remittances or diverted the same to a foreign bank account outside Sri Lanka.

Exchange Rate and Cost of Remittances

The key cost components of remittances include: (i) a direct fee charged by the remittance service provider at the remittance originating country,

Key Cost Components of Formal Remittances



[8] Central Bank of Sri Lanka. (2021). *New Rules to Convert Export Proceeds will Result in Multiple Benefits to the Country and Have No Impact on Inward Remittances by Sri Lankans Working Abroad.* Colombo: Central Bank of Sri Lanka.

(ii) a direct fee charged by the remittance service provider at the remittance payout country, and (iii) foreign exchange rate margins which is the percentage difference between the foreign currency exchange rate attributed to the transaction by the remittance service provider and the inter-bank exchange rate when transactions are made in local currencies (see infographic).

Non-financial costs include speed, the convenience of initiation and payout, and risk, for which subjective financial costs or opportunity costs are attached. Evidence indicates that foreign exchange margins account for a third of remittance costs.[9] Echoing this, during much of 2021 and up to March 2022, the cost of remittances via formal channels surged when the LKR/USD exchange rate was held artificially low despite market pressures for depreciation (also confirmed by evidence on social media by migrants). This situation worsened due to the severe shortage of foreign exchange in the domestic market and the continuous depreciation of the LKR after it was floated. These resulted in delayed conversions of foreign exchange, further expectations of depreciation and a high premium offered in the grey market, thus placing more significant pressure on the currency. The demand for forex in the grey market has also tightened import demand outside the banking system, putting extra pressure on the currency and exacerbating the stress in the banking sector. This substantial exchange rate volatility led to an unexpected rise in both the interbank exchange rates and customers' buying and selling rates, leading to excessive currency speculation and increased cost of remittances in formal channels while furthering demand for informal remittance channels.

Leveraging Remittances as a Signal of Discontent

In addition to holding back remittances due to exchange rate issues, some remitters held back formal remittances to signal their dissatisfaction with the political leadership. In fact, social media evidence reflected widespread dissatisfaction and mistrust amongst migrants towards the government and their refusal to send money until a change of government took place. In response to this, the CBSL has frequently published several notices and requested migrant workers to remit through formal channels to enable the banks and the CBSL to facilitate forex payments for essential commodities and medicine amidst the crisis.

Misunderstanding Formal Remittances

A large segment of migrants and their family members have misunderstood the requests to 'send remittances through formal channels' as a request to send funds to government-owned accounts instead of family members' bank accounts. This was confirmed by the broad comments on social media, indicating that many are concerned about whether their immediate family members will receive money through formal remittance methods. While highlighting the mistrust of remitters and migrant households with the government and CBSL initiatives in the context of the ongoing economic and political crisis, this further highlights the possibility of widespread use of informal channels by a segment of remitters and migrant households and the near zero understanding of the operation of formal channels.

[9] Kristo Käärmann. (2021). *Ending Remittance Hidden Fees: The International Community Calls for Action. People Move.* Retrieved May 05, 2021, from World Bank Blog: https://blogs.worldbank.org/peoplemove/ending-remittance-hidden-fees-international-community-calls-action

Box 8.1:
Issues Faced by Student Migrants in Sending Out Remittances

With the prevailing forex crisis, student migrants and their parents or guardians also face several difficulties in sending out remittances for study purposes since the banks were short of foreign exchange and adhering to several regulatory constraints that limit the amount of remittances sent out of Sri Lanka.

Several methods are used when sending outward remittances for education abroad. One key channel is the telegraphic transfer (TT) method. For the TT option, the student must register/open a file with a licensed commercial bank in Sri Lanka before departure which enables them to send out remittances in terms of foreign currency for education and related expenditures. Usually, the tuition payments are paid directly to the educational institute/university via the TT option, while living costs may be sent directly to the student's bank account in the country of destination (COD) using the TT option. However, TT payments to a student's personal bank account are limited based on the published expected living expenditures by the respective educational institute. Because of these restrictions, the most popular method of sending funds is through a local commercial bank account. In this case, the parents/guardians in Sri Lanka would deposit LKR into a bank account in Sri Lanka, with an automated teller machine (ATM) card being held by the student abroad; the student then withdraws money in foreign currency at the COD using this ATM card, subject to the foreign exchange rate and withdrawal limitations. Due to the economic crisis in Sri Lanka, such weekly withdrawals were limited to varying amounts by each licensed commercial bank (LCB) in Sri Lanka. For instance, the Bank of Ceylon had set a limit of USD 1,000 per day. Another alternative option is to utilise a credit card issued by a Sri Lankan bank, with charges incurred in foreign currency in the COD and credit card payments made in LKR in Sri Lanka.[10] Regulatory limitations, as well as costs for overseas transactions, apply to this option, similar to the ATM card option.

However, due to the current forex crisis, regulatory limitations imposed by LCBs in Sri Lanka, and the significant challenges faced in sending out remittances for study purposes, the parents/guardians of students have been driven to purchase foreign currency in the black market at higher parallel exchange rates. Moreover, some parents have resorted to contacting friends and relatives overseas to request them to transfer foreign exchange directly to the student's accounts, to be repaid in LKR. Nonetheless, as seen on several social media sites, international universities also denied the admissions/applications of Sri Lankan students, given the serious issues that students have in paying tuition fees and meeting their expenditures in the COD.

[10] Weeraratne, B., Weerasekara, H., & Bandara, T. (2022). *Understanding Student Migration from Sri Lanka.* Colombo: Institute of Policy Studies of Sri Lanka.

Decline in Formal and Increase in Informal Remittances

The combination of the above discussed resulted in some remitters holding back formal remittances and sending only the minimum needed by the family left behind in Sri Lanka. For instance, worker remittances were reported at USD 1.6 billion (Bn) up to June 2022 compared to USD 3.3 Bn in the corresponding period in 2021.[11] Taken in the context of departure statistics for the first six months of 2022 – at over 138,000 and much higher than the 40,380 and 30,606 recorded in the corresponding periods in 2020 and 2021, respectively – clearly show the purposeful withholding of formal remittances to Sri Lanka.

Whilst the formal component of remittances appears pro-cyclical, emerging evidence indicates no corresponding impact on informal remittances and the informal component of remittances was counter-cyclical. The counter-cyclicality of informal remittances persisted due to two main reasons. First, those who used informal remittances before the crisis continued to use this channel, given the experienced benefits such as trust, convenience, higher rates compared to banking channels, doorstep delivery services, etc. Second, the financial gains associated with informal remittances attracted a new group of remitters to the informal channels. In this context, regulators made several attempts to clamp down on informal remittance channels. These include highlighting the risk for remitters, the risk for informal remittance service providers, introducing new rules and regulations as well as enforcing rules and regulations. For example, the CBSL continued to note that a large volume of money is being remitted through the Hawala/ Undiyal systems and these are being used by some importers for open accounts or Documents against Acceptance (DA)/Documents against Payments (DP) transactions,[12] instead of letters of credit and settlements through the banking system for payment for imports.

Given these concerns, the CBSL introduced several new regulations to curtail the use of Undiyal/Hawala-type systems such as banning/ limiting open account imports and further tightening the enforcement of existing regulations related to the Foreign Exchange Act, No. 12 of 2017, Prevention of Money Laundering Act,

Emerging evidence indicates that for the micro-level remitter, the risk factors of using informal remittances are over-rated as service providers and remitters are incentivised to maintain trust.

[11] Central Bank of Sri Lanka. (2022). *External Sector Performance: June 2022.* Colombo: Central Bank of Sri Lanka.

[12] Documents related to import handling include the release of documents against payments (DP) and the release of documents against acceptance of the bill of exchange (DA).

No. 5 of 2006, Convention on the Suppression of Terrorist Financing Act, No. 25 of 2005 and Financial Transaction Reporting Act, No 6 of 2006. Even under these circumstances, several incidents were reported across the country involving individuals in illegal money transfers. The CBSL also took action against the unlawful conduct of authorised money exchangers, such as temporary suspension of the permit issued under the provisions of the Foreign Exchange Act.

However, emerging evidence indicates that for the micro-level remitter, the risk factors of using informal remittances are over-rated as service providers and remitters are incentivised to maintain trust. As such, even though such transactions are punishable offences, for those obtaining services, there is a minimal actual risk of being caught, even with the possibility of their transactions being linked to funding drug trafficking and other illegal activities. This has prompted the CBSL to carry out awareness campaigns. Yet, it appears that some preference towards informal channels remains due to their cost, convenience, increased accessibility, and low probability of being traced.

Given these concerns, eradicating informal remittance channels is nearly impossible. Efforts should be made to lower the cost of formal remittance channels to encourage remitters to use the proper channels. In this context, the uncontrolled flow of remittances to households through informal channels and the low formal remittances to support the external sector have resulted in uneven micro vs macro level implications. Rebuilding confidence to encourage the use of formal channels remains a key challenge.

8.4 Migration and Remittances and the SDG Framework

As discussed above, migration becomes particularly crucial during periods of uncertainty and economic hardship where the citizens may seek employment opportunities beyond the local economy. How recruitment for labour migration takes place, the channels of student and refugee migration, and access to safe and regular migration, therefore, determine migratory outcomes in CODs, and, upon return, to their country of origin (COO). Lack of discrimination due to migratory status and safe working environments in the COD leads to positive outcomes for the migrant worker during the in-service stages. At the same time, remittances improve the socioeconomic outcomes for families left behind. A successfully reintegrated returned migrant contributes positively to the home country's socioeconomy.

Despite the significant potential, recognising migration for development in global frameworks was slow to materialise. Specifically, the Millennium Development Goals (MDGs), which were the precursor to the SDGs, did not acknowledge the potential of international migration and related migrants' remittances as a factor contributing to development. In 2013, the second High-Level Dialogue on International Migration and Development adopted a declaration acknowledging the role of migration in realising the MDGs and recognising that human mobility is a critical factor for sustainable development, which should be adequately considered in the 2030 Agenda.[13] The inclusion of migration into the SDGs marks the beginning of a new era,

[13] United Nations. (2015). *Integrating Migration into the 2030 Agenda for Sustainable Development.* Washington, D.C.: Department of Economic and Social Affairs, Population Division, United Nations.

highlighting the need to promote safe and regular migration and to support the efficient flow of remittance such that both COOs and CODs can benefit from the migration process.

The SDGs approach migration via the lens of governance of migrant rights by providing a framework to strategically guide future practices in achieving positive migration outcomes for development. Within the framework of SDGs and their targets, migration is addressed via three main channels: (i) single migration as a specific target, (ii) multiple migrations as related targets, and (iii) disaggregation by migration status (Box 8.2).

Box 8.2
Migration in SGDs

The integration of migration into SDGs seeks to optimise the potential of migration for development. Here, SDGs approach migration via the lens of governance of migrant rights by providing a framework to strategically guide future practices in achieving positive migration outcomes for development.[14] Migration is addressed via a single migration-specific target, multiple migration-related targets, and disaggregation by migration status.

Migration Specific SDG Target

SDG 10 focuses on reducing inequality within and among countries. In this context, Target 10.7 is a migration-specific target which calls on governments to "facilitate orderly, safe, and responsible migration and mobility of people, including thorough implementation of planned and well-managed migration policies," to achieve the overall SDG of reducing inequality within and among countries. Within this SDG target, there are two indicators: indicator 10.7.1 is based on the recruitment cost borne by employees as a proportion of yearly income earned in the country of destination, and indicator 10.7.2 is based on the number of countries that have implemented well-managed migration policies.

Migration-related SDG Targets

The migration-related SDG targets are those applicable to migrants in an indirect way. These include Target 3.c, which refers to training and retaining health workers in developing countries and other efforts to reduce brain drain; Target 4.b, which refers to providing scholarships for foreign education; and Targets 5.2, 8.7 and 16.2, which deal with ending human trafficking.

SDG targets related to migrant workers include Target 8.8, focusing on the rights of women migrant workers. SDG Targets 10.c and 17.3 are related to remittances, where the former

[14] Asia-Pacific RCM Thematic Working Group on International Migration. (2015). *Asia-Pacific Migration Report 2015: Migrants' Contribution to Development.*

focuses on reducing the cost of remittances at the micro level, while the latter is about macro level remittances for development financing. Target 16.9 is about providing legal identity for all, including birth registration.

These targets deal with enabling countries to reach a state of sustainable development by promoting human capital creation, channelling resources such as remittances for personal and national level growth and recognising fundamental rights of individuals such as the right to safety and dignified living.

SDGs and Disaggregation by Migration Status

SDG Target 17.18 focuses on the requirement of relevant SDG indicators to be disaggregated by migrant status to allow the comparison of outcomes of SDGs across migrants and natives. This will enable migrants to be focused on many other SDGs and targets related to vulnerable populations and the pledge to "leave no one behind". In essence, disaggregating data by migratory status will also enable a better understanding of migrants' living conditions and how migration affects health, income, education and other aspects of sustainable development.[15]

As such, targets and indicators of various SDGs related to migratory outcomes throughout the migration cycle contribute to sustainable development. Among these, in seeking solutions to migration and remittance issues in Sri Lanka, the focus of this chapter is limited to SGD Targets 10.7 and 10.c.

8.4.1 Orderly, Safe, Regular and Responsible Migration

As discussed, the COVID-19 pandemic and subsequent economic crisis in Sri Lanka disproportionately affected low-skilled workers, females and youth in their migration. As such, SDG Target 10.7 has a significant role in protecting migrants during the economic crisis and recovery period.

Some of the necessary foundations for such protective mechanisms consistent with SDGs are already in place. For instance, as a sending country, Sri Lanka formulated a National Labour Migration Policy (NLMP) in 2008. This policy focuses on three significant aspects: (i) governance of the migration process; (ii) protection and empowerment of migrant workers and their families; and (iii) linking migration and development processes. To complement the NLMP, the Sri Lanka Migration Health Policy (SLMHP) was formulated in 2012 to safeguard the health of all categories of migrants throughout the migration cycle. Similarly, in 2015, the Sub-policy and National Action Plan on Return and Reintegration of Migrant Workers were developed. Overall, these have created a strong policy foundation in Sri Lanka to promote safe, orderly and regular migration, throughout the labour migration cycle.

This policy framework is complemented by an institutional structure which consists of a ministry

[15] International Labour Organization. (2018). *Migration and the 2030 Agenda: A Guide for Practitioners*. Geneva: International Labour Organization.

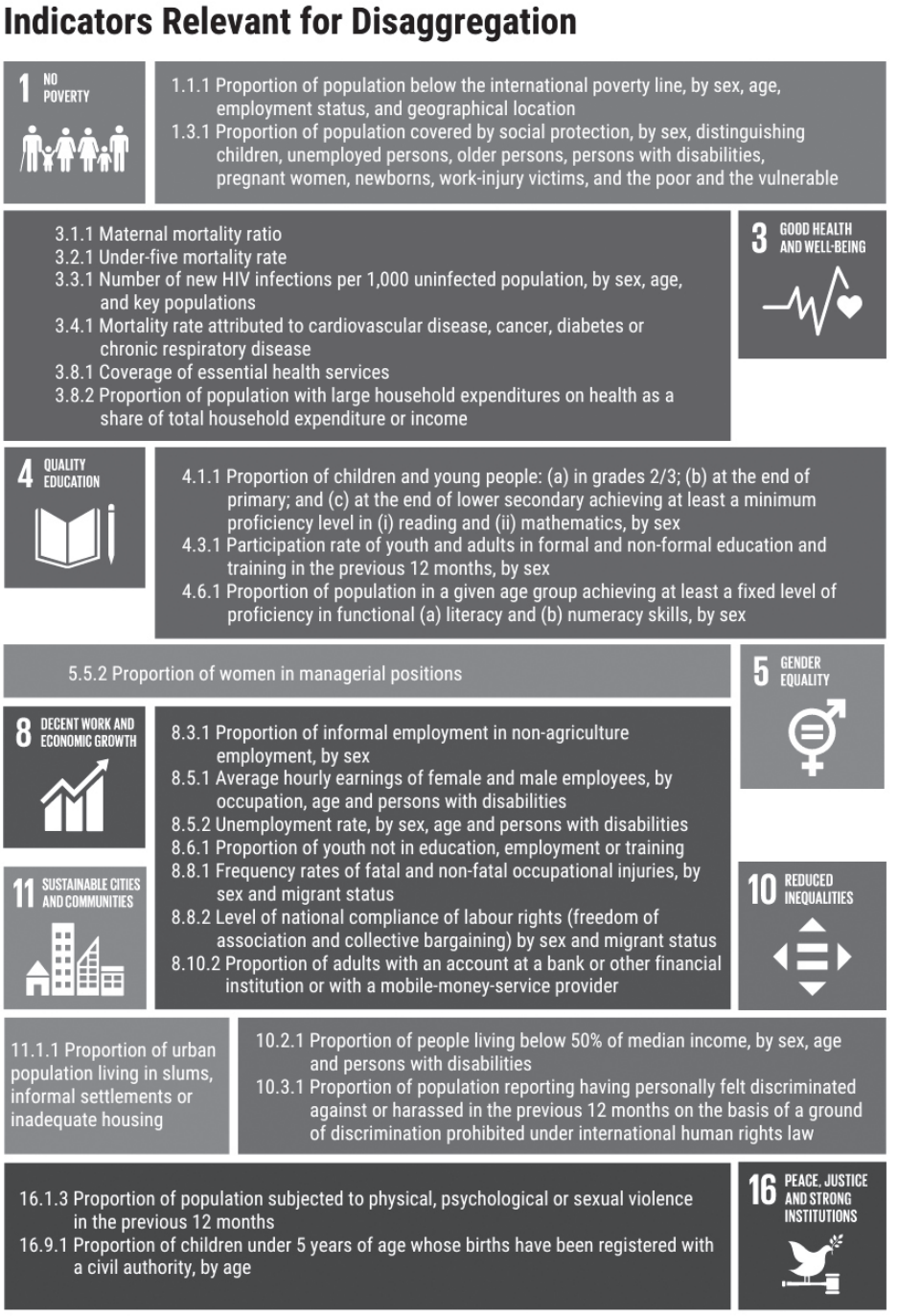
Migration, Remittances and SDGs



Source: United Nations. (2022). The 17 Goals. Retrieved July 10, 2022, from United Nations: https://sdgs.un.org/

charged with foreign employment as well as the SLBFE to implement the said policies and oversee the regulation of labour recruitment. The latter is done by licensing recruitment agencies and registering prospective migrants to minimise potential malpractices. Relating directly to the SDG indicator 10.7.1 that deals with recruitment costs borne by employees as a proportion of yearly income earned in the COD, the 2009 Amendment to the SLBFE Act of 1985 empower it to regulate the recruitment cost for labour migration, such that the maximum chargeable recruitment fee for female domestic workers to the Middle East is capped as zero. However, it should be noted that the recent LKR depreciation and rise in global prices have resulted in the maximum chargeable recruitment cost being quoted independent of airfare, leading to unexpected high recruitment costs for potential migrant workers.

SDG Indicators Relevant to Disaggregation by Migration Status



Source: United Nations. (2022). *The 17 Goals.* Retrieved July 10, 2022, from United Nations: https://sdgs.un.org/

The NLMP does not cater to the changes in the composition of labour migration, national priorities or the global landscape on labour migration, amongst other shortfalls.

To link migration to Sri Lanka's development process, as per the NLPM and the Sub-policy, the relevant ministry and the SLBFE engage in data collection, coordinate with other ministries, agencies and private entities to recognise and promote skills with global demand, promote formal channels for transferring remittances and provide reintegration support. This is done through the provision of skills training to migrant workers before their departure, conducting awareness programmes for migrant communities on a range of themes including safe migration, and the initiation of programmes to uplift the socioeconomic status of migrant worker families, such as family development plans and care plans which are implemented at the Divisional Secretariat (DS) level with the support of Development Officers (DOs).

Additionally, the SLBFE maintains safe houses in CODs in collaboration with the Sri Lankan diplomatic missions, provides an insurance scheme and maintains a mechanism to receive and address complaints by migrants working abroad. Similarly, Sri Lanka too relies on the international cooperation through memoranda of understanding (MOUs) and bilateral agreements, as well as global and regional multilateral consultative forums such as the Colombo Process and Global Forum on Migration Development. Yet, the effectiveness of these agreements and discussions in upholding the rights of migrant workers remains unclear due to the limited follow-up.[16]

A key impediment to achieving Target 10.7 is the reliance on the dated policy which came into effect in 2008. As such, the NLMP does not cater to the changes in the composition of labour migration, national priorities or the global landscape on labour migration. Other shortfalls in the NLMP are its emphasis on outward orientation; insufficient focus on improving access to affordable, convenient and safe remittance channels; limited provisions to address vulnerabilities other than genders, such as age and health status, and inadequate protective measures for low-skilled male migrants; and not having clearly defined institutions or agencies to collaborate with. The recent effort to revise and update the NLMP was steered by the International Labour Organization (ILO) in 2017/2018, but an updated policy has not yet materialised. In terms of policy implementation issues, the SLMHP is yet to be implemented, while the NLMP and the Sub-

[16] CENWOR. (2018). *Sri Lanka's Policy on Labour Migration: How Far Have We Come?*. Colombo: International Labour Organization.

policy on return and reintegration can improve their implementation. Some implementation gaps of the NLMP and the Sub-policy result in the absence of regular and comprehensive data collection, non-reliance on data and empirical evidence for policy formulation, lack of up-to-date market research to find new markets and capacity constraints and coordination between the implementing institutions.

These gaps became evident during the COVID-19 pandemic amidst an apparent lack of preparedness in managing return and reintegration. For instance, scams and allegations of corruption in securing entry permits and seats on flights to the country were reported during the repatriation process of migrant workers in 2020.[17] Furthermore, most support mechanisms for return migration extended during COVID-19 were not the result of implementing the Sub-policy but ad hoc support mechanisms that developed during the pandemic. To facilitate the increased demand for safe and orderly return migration services, the government set up a website, 'Contact Sri Lanka', through which migrants could register to request repatriation support. To ensure the safety of stranded migrant workers, the SLBFE operated 15 short-term shelters at Sri Lankan diplomatic missions. This, too, was subject to some criticism as it served only female migrants.

While policies and regulations promote safe, orderly and regular migration, excessive regulations contribute to irregular migration. For instance, the introduction of the family background report (FBR) requirement in 2013, which restricted the migration of females with children under five years of age, was associated with a rise in the vulnerability of low-skilled migrant workers to recruitment-related corruption and increased irregular migration. Similarly, the FBR policy also reduced departures among lower-skilled groups such as female domestic workers and unskilled, semi-skilled, and skilled workers while increasing departures among middle-level and professional workers. This shows that tight regulations, particularly those that overlook the underlying factors which influence labour migration, may inadvertently create more significant risks for migrants by limiting access to safe and regular migration pathways. In June 2022, however, the government eased this restriction to allow women with children older than two years to migrate without submitting an FBR, citing issues including women's rights, delays in obtaining documents and encouraging irregular migration through highly restrictive regulations.

8.4.2 Combatting Trafficking and Smuggling

Consistent with Targets 8.7, 5.2 and 16.2 dealing with trafficking, some progress has been achieved in preventing and prosecuting human trafficking in Sri Lanka. A National Anti-human Trafficking Task Force was established and has prepared a National Human Trafficking Action Plan for 2021-2025, approved by the Cabinet of Ministers in 2021.

In terms of Sri Lanka's legal framework, sex trafficking and labour trafficking are criminalised under Section 360(C) of the penal code of Sri Lanka with penalties of 2-20 years imprisonment and a fine, while the sexual exploitation of children is criminalised under Section 360(B) with 5-20 years imprisonment and a fine. However, accessibility to the legal system can be

[17] Weeraratne, B. (2020). *COVID-19 and Foreign Exchange Woes: Can Sri Lanka Find a Way Out?* Retrieved May 10, 2022, from Talking Economics: https://www.ips.lk/talkingeconomics/2020/04/17/covd-19-and-foreign-exchange-woes-can-sri-lanka-find-a-way-out/

limited due to issues such as a lack of financial support and the stigma associated with being a victim of trafficking. Allegations of complicity by authorities are also a major concern. To address these shortcomings, it is important to develop the capacity of relevant authorities. Collaborative efforts have been made with the support of international organisations and governments to improve officers' technical skills and knowledge from the grassroots to the national level. The Safe Labour Migration Programme in Sri Lanka conducted by the ILO with the support of the government of Switzerland is one such programme.[18] Given the rise in reports of attempted irregular migration during the current crisis, a need exists to enhance law-enforcement operations and create broader awareness regarding the safe and regular migratory options available to aspiring migrants.

8.4.3 Lowering the Cost of Remitting

As discussed in the previous section, aside from miscommunication and signalling by relevant authorities, a key reason for the decline in formal channels in favour of informal channels is the relative cost of remittances across the two.

The SDG Target 10.c (lowering remittance costs to below 3% and eliminating remittance corridors with costs over 5%) and indicator 10.c.1 (remittance costs as a proportion of the amount remitted) apply to costs associated with formal remittance channels due to their capacity to quantify costs. Nevertheless, it is essential to focus on informal remittance channels and their costs due to the comparison of costs across the two channels by remitters before selecting one. As such, along with reducing the cost of remittances, it is important to eliminate cost gaps between the two channels.

In this regard, one of the key steps is to align the black-market rate and the official rate offered for foreign exchange in Sri Lanka. With such parity, the difference in the foreign exchange rate margin adopted by the formal and informal channels would be eliminated. Moreover, in the case of remittances to Sri Lanka, remittance fees are collected both at the time of initiation of remittances in COD and at the time of payout in Sri Lanka. At initiation, often the cost is a fixed amount per transaction, regardless of the amount remitted (i.e. USD 10 per transaction). Similarly, at payout in Sri Lanka, a nominal fixed service fee is charged per transaction. For instance, in 2020, the Bank of Ceylon charged LKR 150 per over-the-counter payout and LKR 100 for crediting remittance to an LKR deposit account. At the same time, for crediting remittances to an account, the People's Bank charged LKR 100 and LKR 200 for up to and above LKR 500,000, respectively. For cash payouts up to and above LKR 500,000, the People's Bank's charges were LKR 150 and LKR 300, respectively.[19] Such involvement of a per transaction fee regardless of the amount remitted results in the cost of remittance as calculated in SDG indicator 10.c.1 (cost as a percentage of the amount remitted) becoming a regressive fee, costing more for those sending smaller amounts or making frequent remittances. On the contrary, in most informal channels, a service fee is not charged at the time of payout in Sri Lanka. Moreover, the highly rule-based documentation requirements – especially the know-your-customer (KYC) requirements as per anti-money laundering/

[18] International Labour Organization. (n.d.). *Safe Labour Migration Programme in Sri Lanka.* Retrieved May 10, 2022, from International Labour Organization: https://www.ilo.org/colombo/whatwedo/projects/WCMS_567275/lang--en/index.htm

[19] As per discussions held at the Committee on the Establishment of a Social Security Scheme for Migrant Workers, May 2020.

combatting the financing of terrorism regulations in formal channels – add to the non-financial cost of remittances in formal channels.

Recent estimates by the ILO indicate that the average cost of remittances to Sri Lanka via banking channels stood at 5.4% of the amount remitted, while the cost via money transfer operators (MTOs) is 3.7%.[20] However, no reliable estimates are available on the cost of informal remittances. The remittance costs within formal channels are higher in banks than MTOs, mainly due to banks' dependence on MTOs for foreign exchange transactions. Here, MTOs offer no transparency in determining the formula for remittance charges placed on banks, force banks to maintain parallel operating systems and impose an unequal balance of power over banks. Meanwhile, financial intermediaries maintain hidden costs to their benefit through forex margins and float income by retaining funds for extended periods. Additionally, other factors impacting the higher cost of remittances include underdeveloped financial infrastructure, lack of competition, lack of transparency, regulatory obstacles, and lack of access to the banking sector.

Factors impacting the higher cost of remittances include underdeveloped financial infrastructure, lack of competition, lack of transparency, regulatory obstacles, and lack of access to the banking sector.

As such, these adverse developments during the economic crisis have exacerbated the vulnerabilities in the external sector of the Sri Lankan economy and narrowed down financial prospects for long-term sustainable development.

8.5 Policy Recommendations

8.5.1 Improve Access to Formal Remittance Channels

Short-term Measures – Increase Awareness Regarding Formal Remittance Channels: Given the importance of remittances flowing through the formal channels, in the short-term, a micro-level approach is needed to promote/ restart formal remittances, where awareness is to be increased among both current and potential migrant workers regarding the types of formal remittance channels available while explaining

[20] International Labour Organization (2020). *A Comprehensive Analysis of Remittances Sri Lanka.* Geneva: International Labour Organization.

the demerits associated with remitting money through informal channels. A high priority should be given to this during the pre-departure training of migrant workers. Further, training should be provided to improve the accessibility of migrant workers to use digital platforms to send money. Additionally, a well-designed information pack on formal vs informal remittances can be distributed at the departure lounges in Sri Lankan airports.

Short-term Measures – Improve Attractiveness of Formal Remittances: Here, it is essential to note that banks and non-bank financial institutes operating in the remittance market have been focusing on offering incentive packages to migrant workers to attract them towards formal remittance channels. Some incentive measures presented are raffle draws, gift awards/scholarships for children of migrant workers, and low-interest rate loans for education, housing, business startups, and purchasing assets/properties. Those yet in the proposal stage include various tax reliefs and permits to import electric vehicles for migrant workers who remit money via legal/official channels. As such, it is important to study why such incentive packages already in place are not producing the intended results and improve on the limitations to attract more remitters.

Medium-term – Relax Documentary Requirements: To encourage people who use informal channels to switch to formal channels, it is important to relax documentary requirements in the latter. Here, it is important to adopt a risk-based assessment of transaction and balance limits using the pre-pandemic levels as the benchmark and utilise international experiences to align transaction and value limits with risk.

Medium-term – Promote Clear Information About Formal Remittances: Increasing access to clear information on the total costs of sending and receiving remittances by way of strengthening and improving disclosure requirements for remittance service providers to increase price transparency in the remittance market, providing information on the amount that the recipient will receive in the local currency at payout, the total cost (including fees at both ends, foreign exchange rate margins) and the time taken for the funds to reach the receiver, and develop or use existing secure portals to disseminate reliable, trusted and regular information and promote awareness among remittance senders and receivers are also necessary.

8.5.2 Introduce Measures to Lower the Costs of Remittances

Short-term Measures – Adopt Uniform Proportional Remittance Transactions Fee for Payouts: It is important to introduce a mechanism for all remittance service providers in Sri Lanka to charge a uniform proportional remittance transaction fee for payouts and eliminate the regressive nature of the remittance cost toward a proportion of the amount remitted, and to make the remittance cost calculation simplified for migrants in COD in terms of SDG indicator 10.c.1.

Short-term Measures – Educate/Regularly Update Current or Potential Migrants on Cost Components and Exchange Rate Margins: It is vital to eliminate parallel markets for foreign exchange and thereby eliminate complicated cost calculation in terms of exchange rate margin. Potential and current migrant workers should be educated and regularly updated about the latest developments in remittances, hidden and transparent cost components, and calculation of exchange rate margins to ensure that remitters

can assess the total cost of remittances before choosing remittance channels.

Medium-term Measures – Initiate a Global Dialogue between CODs to Reduce the Cost of Remittances: This can be achieved in many ways, not limited to negotiating with MTOs and exchange houses in CODs to minimise their fees for remittances, but also through developing partnerships or MOUs/bilateral agreements between CODs with regards to lowering the cost of remittances.

Medium-term Measures – Harness the Collective Voice of Other Remittance Receiving Nations: Here, lessons can be drawn from other remittance-receiving nations in the South Asian region such as India, Pakistan and Nepal to drive changes in CODs for reducing the cost of remittances at the point of remittance initiation. In this regard, key areas to focus on are improving transparency in the remittance market by expanding digital remittances, using more efficient currency exchange mechanisms with reduced costs, increasing service sustainability, adhering to regulatory guidance and coordination between sending and receiving countries, and working to alter transaction and value limits in remittances.[21]

Medium-term Measures – Improve Financial Infrastructure and Financial Inclusion: In terms of developing financial infrastructure, it is important to minimise regulatory obstacles, adopt a risk-based approach to KYC requirements and improve accessibility while reducing the non-financial costs associated with such formal remittance channels. Moreover, mechanisms to promote financial inclusion should involve strengthening competition, improving access to banks, developing financial infrastructure and access to the financial sector, and promoting the use of online remittances, mobile money, and Fintech transfers, which would ultimately promote digital money transfers and lower the remittance costs in Sri Lanka.

8.5.3 Integrate Informal Channels into Formal Channels

Short-term Measures – Learn from Informal Channels: Instead of eradicating, there is scope to integrate the services provided by informal money transfer systems into the formal sector. To better serve customers, banks and other non-bank financial institutions (including MTOs) should implement the strategies adopted by informal channels and improve their services, such as by adhering to timely operations and door-step delivery services, etc.

Medium-term Measures – Revisit Existing Policies: Measures should be taken to integrate/absorb the irregular money transfer operators into the formal banking system. This could be done by revising the existing policies while eliminating the limitations of such policies. Further, identifying the characteristics/dynamics of such informal remittance channels is essential when devising the policies. This can enable access to remittance transfer channels while reducing the cost component. This would benefit remittance-receiving countries such as Sri Lanka and can also be seen as a step supporting SDG Target 16.a on strengthening relevant national institutions through international cooperation

[21] Kristo Käärmann. (2021). *Ending Remittance Hidden Fees: The International Community Calls for Action. People Move.* Retrieved May 05, 2021, from World Bank Blog: https://blogs.worldbank.org/peoplemove/ending-remittance-hidden-fees-international-community-calls-action

for building capacity at all levels, particularly in developing countries to prevent violence and combat terrorism and crime.

8.5.4 Minimise Vulnerability

Upholding SDG Target 8.8 on "protecting labour rights and promoting safe and secure working environments for all, including migrant workers, particularly women and those in precarious employment conditions", is vital during this period of socioeconomic uncertainty. This is especially crucial since many citizens may seek foreign employment opportunities. At the same time, it is necessary to uphold Target 8.7 on implementing measures to eradicate forced labour, modern slavery and human trafficking.

Short-term Measures – Create Broader Awareness Regarding the Safe and Regular Migratory Options: Minimise the vulnerability of migrants involves enhanced law-enforcement operations and create broader awareness regarding the safe and regular migratory options available to aspiring migrants.

With improving demand for migration services and foreign employment opportunities, the SLBFE could play a more significant role in information provision of pathways for safe and regular migration and conduct public awareness campaigns through websites, social media, mass media etc., and by reaching out to communities through their network of officers.

Short-term Measures – Provide Targeted Support for Vulnerable Groups: As the outflow of migrants, both regular and irregular, rises, it is necessary to identify emerging trends in irregular migration and provide urgent services to those in vulnerable conditions. These include assisting those caught up in severe economic hardship or debt and seeking information on the merits and demerits of regular and irregular migration. Similarly, for those stranded or detained at a COD or while on the journey, information and support should be provided about strategies for the transition from irregular to regular migration. Irregular migrants should be identified and supported to ensure their basic needs and rights are met.

Medium-term Measures – Improve Collaboration by Stakeholders: In providing such services, it can be helpful to strengthen collaborations with stakeholders such as national and international non-governmental organisations (NGOs) and governments of CODs to meet mutual goals of promoting safe, orderly and regular migration and pooling resources. By doing so, Target 17.h on encouraging and promoting effective public, public-private and civil society partnerships can be achieved.

Medium-term Measures – Harness the Potential of MOUs/Bilateral Agreements: Ensuring safe, orderly and regular migration is limited by the suboptimal effectiveness of MOUs and bilateral agreements as well as multilateral forums that address migrant's concerns. This is partly due to the high inward-remittance dependency of many labour-sending states; there may be some hesitancy among governments of such states to address the safety concerns of migrant workers, despite entering into various agreements with CODs. As such, it is necessary to develop a regional or international mechanism to facilitate follow-ups on such agreements to assess their effectiveness. Moreover, maintaining transparency regarding the conditions and following best practices of other labour-sending states can help ensure the effectiveness of new agreements.

8.5.5 Facilitate Greater Migration

Both Targets 10.3 and 16.b guide facilitating greater migration by ensuring equal opportunities and reduced inequalities by eliminating discriminatory laws and practices while promoting fair laws and policies for sustainable development.

Short-term Measures – Simplify the Migration Process: To ease the demand for irregular migration, it is necessary to facilitate greater safe migration options. This can involve simplifying the migration process and reducing delays by removing overly restrictive regulations such as age limits that have had limited effectiveness. Faster services on issues such as police clearance and translation and confirmation of education and skills credentials are other improvements to facilitate migration. Additionally, efforts to eliminate financial bottlenecks for those with a valid foreign employment offer and providing a speedy departure loan to be settled via foreign remittances can assist in this regard.

Medium-term Measures – Explore New Markets and Cater to Global Skills Demand: Exploring opportunities available in countries beyond the conventionally popular COD for Sri Lankan migrant workers should be an ongoing process. Such initiatives must seek to enter into programmes such as the Employment Permit System (EPS) of the Republic of Korea that would promote safe migration. In addition, Sri Lanka must be cognisant of changing skills demand globally to facilitate related worker migration. Addressing possible skill mismatches between local labour supply and global labour demand is an integral part of this, as is the provision of enhanced opportunities to acquire knowledge and qualifications. Such measures too would be in line with Target 8.6, which involves the reduction of the proportion of youth not in employment, education or training.

8.5.6 Improve Policy Implementation

Short-term Measures – Improve Resource Allocation for Policy Implementation: One major bottleneck in policy implementation is the limited funding available to provide the services necessary to ensure safe, orderly and regular migration. As the SLBFE has expanded its scope to engage in a broader range of activities such as conducting awareness programmes, providing welfare services and reintegration support, limitations in its budget allocation undermine the implementation aspects of these efforts. To overcome this, the relevant Ministry and the SLBFE may be able to tap into existing state support systems and resources provided to related agencies overseeing women and child development, social services, etc. Further, increasing engagement with the private sector, NGOs, and international donors may be possible to expand funding capacity and ensure better policy implementation.

By focusing on Target 5.b on enhancing the use of enabling technology, mainly information and communication technology (ICT), the implementing agencies may also be able to utilise more cost-efficient service delivery channels such as digital platforms including web portals and mobile applications so that migrant workers can easily access information and services.

Medium-term Measures – Improve Capacity for Policy Implementation: Capacity constraints among the staff of the SLBFE as well as the Sri Lankan missions in CODs are another factor that limits policy implementation. Some measures have already been taken to overcome

this issue through training programmes and technical support provided by international organisations and development partners. Other steps that can be taken to address this issue include strengthening feedback systems from migrant workers and a more robust managerial/ supervisory system to ensure the quality of services provided.

Medium-term Measures – Ensure Institutional Memory for Policy Implementation: The current transfer system of public sector officials results in a limited pool of capable officials remaining in institutions that service labour migration in the long term. This imposes limitations on policy implementation. It is essential to adopt a mechanism whereby a minimum quorum of officials trained and experienced in migration remain in the related ministry handling the subject.

Medium-term Measures – Mainstream Migration into Development: Furthermore, a need exists to improve mainstreaming of migration into the development plans of Sri Lanka to support safer migration pathways. While some mentions of migration are made in state policies and programmes such as the National Policy on Technical and Vocational Education, Sri Lanka National Migration Health Policy, and the National Policy for Decent Work in Sri Lanka, insufficient coordination between government ministries and agencies has resulted in the lack of an overall development framework. To address this issue, major ministries must better coordinate their policies and targets, ensuring that migrants are supported in their economic, social and psycho-social needs throughout their migration cycle while contributing to national development.

9. Towards Universal Education and Universal Healthcare

9.1 Introduction

Education is a universal right and an agent of upward socioeconomic mobility. Education opens many social, economic, and political doors and enhances access to income and employment opportunities. Providing every child with equal access to education is a prerequisite of a democratic society. Likewise, the health of a nation plays a crucial role in sustainably attaining growth targets. Health is crucial in achieving capacity for personal development and economic security of individuals as well as households. The distribution of health outcomes can be regarded as a key indicator of the inclusiveness of economic growth of a country, and the levels and distribution of health outcomes can also serve as proxies for the concern a government has for all its citizens.

Sri Lanka has long been recognised for its achievements in human development. Successive governments have regarded education and health services as crucial for enhancing human development, promoting equity, and contributing to economic growth. Some of the key policies, such as free education from kindergarten to university; compulsory education for children of 5 to 14 years; universal healthcare facilities, including the provision of access to public health services even in most remote areas, have contributed immensely to achieving better access to education and health services. In the long run, these policies and programmes helped Sri Lanka to achieve related Millennium Development Goals (MDGs), such as universal primary education and maternal, newborn and child health (MNCH) targets, even before the target year 2015.

Following on from the MDGs, the Sustainable Development Goals (SDGs) on education and health broadly aim to "promote inclusive and equitable quality education and healthy lives". Sri Lanka's basic education is almost universally available with an islandwide network of state-funded schools and other welfare measures. Yet, participation falls and is less equitable in higher grades. Especially, children from lower-income groups have less access to education at the collegiate level, where enrolment rates vary from 30% for children in the poorest decile to 73% for children in the wealthiest decile.[1] Apart from that, in response to the COVID-19 pandemic, the shift to online education, and flexible learning approaches have widened these inequities during the last two years.

Similar to universal education, Sri Lanka has been performing well in accomplishing universal health coverage (UHC) owing to free healthcare services at the point of service delivery since 1951. The free healthcare policy covers all medical services

[1] Author's calculations based on Housing and Income Expenditure Survey (HIES) 2019 data, by the Department of Census and Statistics (DCS).

free of charge in government medical institutions, including curative, preventive, rehabilitative and promotive healthcare services. However, many challenges remain for UHC, especially with the current economic turmoil that places further pressure on limited health sector finances and the spending power of households.

This chapter examines the progress and developments in achieving these two key SDG Targets 4.1 and 3.8, namely, universal primary and secondary education and UHC in Sri Lanka. It analyses gaps in achieving the set targets and provides policy recommendations through the lens of the overarching themes of equity and inclusion while considering the impacts of the COVID-19 pandemic and the current economic crisis.

9.2 SDGs in Education and Health and Sri Lanka's Progress

While education is essential to achieve all SDGs, it has its own dedicated goal to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all". It calls for access to quality education for all regardless of their socioeconomic circumstances and equipping them with relevant and effective learning outcomes. Accordingly, the SDGs address future educational challenges through seven targets and three means of implementation. These 10 targets can be regrouped into three: 1) general education and its inputs; 2) tertiary education, and 3) equity and inclusion, which is cross-cutting across all targets. General education sets the foundation for the academic development of a child. Thus, SDG targets universal primary and secondary education as prime goals. Further, equity and inclusion emphasise a commitment to giving everyone an equal opportunity and leaving no one behind to address all forms of exclusion.

Similarly, while all SDGs are influenced by health, their specific aim is to "ensure healthy lives and promote wellbeing at all ages". It addresses all major health priorities, including MNCH, sexual and reproductive healthcare services, communicable, non-communicable and environmentally driven diseases and UHC. Here, UHC acts as a key driver for achieving all targets, bringing together all health issues, diseases and population-specific health targets in an integrated approach. Therefore, UHC is often presented as an 'umbrella' for health SDGs.

Sri Lanka has achieved relatively strong health indicators mainly due to a broad network of health institutions that provide effective health services. For instance, the country is performing well ahead of other low-middle-income countries (LMICs) like India and even upper-middle-income countries (UMICs) like the Philippines, Malaysia and Thailand (Table 9.1). The country's life expectancy at birth, which stands at 77 years, is higher than the UMICs of Malaysia and the Philippines. In terms of MNCH indicators, Sri Lanka's neonatal, infant, and under-five mortality rates are 4.0, 5.9, and 6.9 per 1,000 live births (LB), respectively; and the maternal mortality ratio of 36 per 100,000 LB, is commendable when compared to its peers.

Nonetheless, Sri Lanka's current economic crisis has exacerbated problematic issues in the health sector. Given that most essential medicines and resources are imported, an acute foreign exchange crisis severely inhibits importing essential medicines and resources to facilitate uninterrupted services. This results in severe shortages of essential medicines, including those

Table 9.1
Good Health and Well-Being Targets, 2020

Health Indicator	Sri Lanka	India	Malaysia	Thailand	Philippines
Life expectancy at birth (years)	77.1	69.9	76.3	77.3	71.4
Neonatal mortality rate (per 1,000 LB)	4.0	20.3	4.6	4.9	12.6
Infant mortality rate (per 1,000 LB)	5.9	27.0	7.4	7.4	20.9
Mortality rate, under-5 (per 1,000 LB)	6.9	32.6	8.6	8.7	26.4
Surviving infants who received 2 WHO-recommended vaccines (%)	99.0	91.0	97.0	96.0	65.0
Incidence of tuberculosis (per 100,000 people)	64.0	188.0	92.0	150	539.0
Births attended by skilled health personnel (%), 2016/2017	99.5	81.4	99.6	99.1	84.4
Maternal mortality ratio (modelled estimate, per 100,000 LB), 2017	36.0	145.0	29.0	37.0	121.0
Universal Health Coverage (UHC) Index of service coverage (worst 0–100 best)	66.0	47.0	67.0	72.0	55.0

Source: Author's compilation based on World Bank Development Indicators (2022). Retrieved May 20, 2022, from World Bank: https://databank.worldbank.org/reports.aspx?source=2&series=SP.DYN.IMRT.IN&country=LKA

required for cancer patients, heart patients, anti-rabies, antibiotics, and consumables. Further, there is a higher risk that the intensive care units (ICUs) and high dependency units (HDUs) will be unserviceable due to the inability to provide essential blood gas analysers.[2] As a result, patients treated under ventilators in ICUs and HDUs are at high risk.

Furthermore, routine non-emergency surgeries, investigations and laboratory tests are limited and delayed to conserve stocks, and fuel shortages and power outages for prolonged hours are disrupting normal hospital operations. Worryingly, drug shortages have seen hospitals requesting patients to purchase medicines from private pharmacies, but the prices of medicines are rising sharply due to scarcity as well currency depreciation, imposing a heavy burden on patients. This results in rising out-of-pocket (OOP) expenses for healthcare by patients. Given all these adverse developments, the impact of the economic crisis is likely to be especially devastating in attempts to achieve UHC.

Like health service disruptions, the government too is running short of finances to provide necessities to carry on uninterrupted education services. Indeed, reported shortages of paper and other materials to conduct exams and provide school meal programmes were some of the early impacts. Further, children missed more school

[2] Daily Mirror. (2022, May 18). *ICUs, HDUs Likely to Close in Hospitals: Health Professionals Fed.* Retrieved May 20, 2022, from Daily Mirror: https://www.dailymirror.lk/breaking_news/ICUs-HDUs-likely-to-close-in-hospitals-Health-Professionals-Fed/108-237260

days as the government decided to close schools due to transport problems arising from fuel shortages. This will affect the school education of children, which has already been severely hampered by the pandemic, and thereafter by a teachers' strike for more than three months in 2021, demanding a wage rise. As a result, the risk of children dropping out of the school system has heightened.

Additionally, power outages, on top of the pandemic, severely impeded online education, affecting the students physically and mentally. Other spillover impacts such as a surge in inflation are imposing a harsh financial burden on the parents of school-going children. Associated escalations in transportation costs and the cost of all other materials required to send a child to school are skyrocketing. Overall, in addition to the pandemic-related disruptions, the current economic crisis makes the goal of universal education (free, equitable and high-quality education) much harder to achieve.

In this context, Sri Lanka's achievement of universal primary and secondary education and UHC targets by 2030 will be tough and with the risk that much of the progress made since independence could be reversed. The following sections of this chapter assesses the country's progress toward the above SDG targets and identifies existing gaps in achieving these, while highlighting inequities faced by different socioeconomic groups and regions.

9.3 Universal Primary and Secondary Education

Over the years, several measures have enabled Sri Lanka's education system to improve on equity in providing education for all persons, despite other socioeconomic and regional disparities. Since 1945, Sri Lanka has been committed to providing free education from school to university. The introduction of the free education policy can be considered a milestone in the delivery of social welfare and justice as it opened the door to both general and higher education for all children in the country. Especially, children from rural areas and low- and middle-income families benefited immensely from this policy.

Further, Sri Lanka is committed to supporting 'education for all' and adhering to ethics and standards proclaimed by provisions in international conventions. Accordingly, a policy on compulsory education for all children between 5-14 years of age to ensure a minimum of nine years of education was implemented in 1998. To improve access to general education, several welfare programmes were implemented by successive governments, including the distribution of free textbooks, scholarships for disadvantaged students, free uniforms, and subsidised transport facilities. Given these efforts, Sri Lanka had little difficulty in meeting education sector related MDGs.

9.3.1 SDGs and Universal Primary and Secondary Education

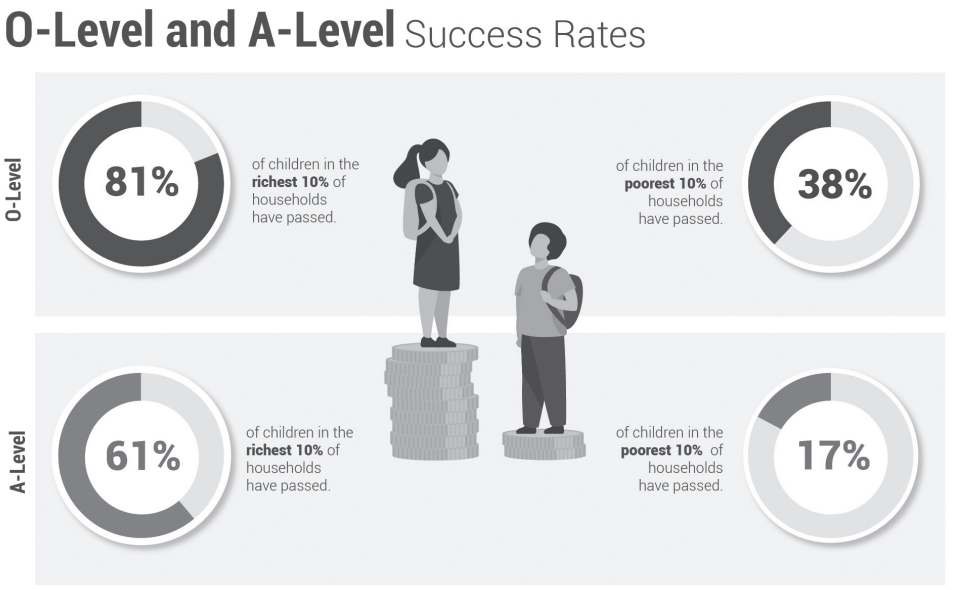
According to SDGs, universal primary and secondary education means all completely free, equitable and quality primary and secondary education, leading to relevant and effective learning outcomes. Thus, equity and inclusion are crucial dimensions to SDG outcomes, both in terms of specific targets and overall targets. Two important factors are to be considered about equity in education – i.e. access and quality. This section first discusses equity in access to

education, and then, examines the reasons for disparities in quality education in terms of school completion at the appropriate age variable, which is an indicator of the quality of education.

9.3.2 Equity in Education: Access and the Quality of Education

Sri Lanka's basic education is almost universalised, but education participation levels fall at higher levels of education. Given the countrywide network of state-funded schools and other welfare measures, remarkable progress is evident in access to education compared to many other developing countries. Net enrolment rates at the primary (grade 1-5) and junior secondary levels (grade 6-9) were 97% and 94%, respectively.[3] However, net enrolment rates fall at higher levels. For example, only 85% of students of the appropriate ages were enrolled at the upper secondary level (grade 10-11), and net enrolment rates were only 53% at the collegiate level (grade 12-13).

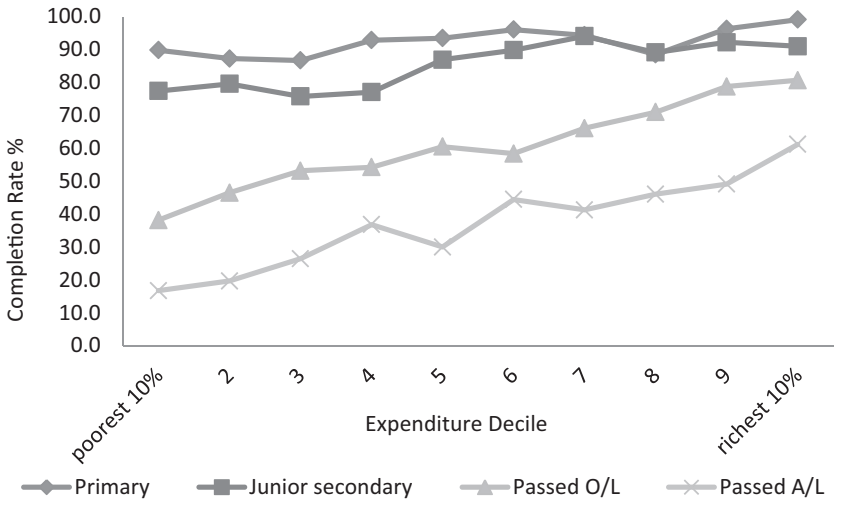
Further, educational completion in all education cycles has room for improvement. For instance, completion rates by appropriate age for primary, junior secondary and senior secondary were 92%, 85% and 53%, respectively, indicating gaps in access to quality education. Disparities in education completion rates are most prominent in senior secondary level education. For instance, these disparities are notably reflected in the Ordinary Level (O-Level) and Advanced Level (A-Level) success rates where around 81% of children in the wealthiest decile pass O-Levels whereas only 38% in the poorest decile succeed in the O-Level exam. Similar disparities are seen in A-Level success rates (see infographic and Figure 9.1). One possible reason behind these variations is the low quality of education. Moreover, although state education services are



Source: Author's calculation based on HIES 2019 microdata.

[3] Net enrolment rates measure enrolment of the official age group for a given level of education expressed as a percentage of the corresponding population. Calculations based on HIES 2019 data.

Figure 9.1
School Completion Rates in Major Education Cycles, 2019



Source: Author's calculations based on Household Income and Expenditure Survey (HIES) 2019 data.

provided free of charge, parents have to spend on private tuition fees which has become crucial to succeed at national examinations in Sri Lanka. As such, affordability too is a key reason for poor educational outcomes.

9.3.3 Reasons for Not Completing Schooling at the Appropriate Age

It is important to determine the factors affecting education completion in the major school cycles – primary (grade 5), junior secondary (grade 9) and pass O-Levels. Estimates from three probit regressions are consistent with the above-discussed determining factors (Table 9.2). For instance, relative to children from the wealthiest income quintile, children from the two poorer income quintiles are less likely to complete the major school cycles.

Male children are less likely to complete the junior secondary school cycle and pass O-Levels than females. The reason could be that male children stop schooling and engage in economic activity due to household financial difficulties. Further, the education level of the head of the household below the primary or secondary levels is negatively associated with children's rate of passing O-Levels.

The findings also reveal existing regional disparities in educational outcomes. For instance, children from the Sabaragamuwa Province show poor performance in completing the primary education cycle. The reasons could be community-related factors that affect both the demand (e.g. remoteness, socioeconomic characteristics, poverty, etc.) and the supply quality of education (e.g. availability of teachers, school facilities, etc.). Distance to a secondary level school also significantly affects the completion of the junior secondary school cycle. In terms of ethnicity, children from Moor or Tamil ethnic groups are less likely to complete major education cycles relative to their Sinhalese peers.

Table 9.2
Factors Affecting School Completion for Different School Cycles (Probit Regressions)

Variables	Grade 5		Grade 9		O/L Passed	
Male	-0.028		-0.224	**	-0.307	***
Sector (relative to Urban)						
Rural	0.254		0.318	**	0.171	
Estate	-0.24		0.149		0.403	
Province (relative to Western)						
Central	-0.242		0.116		-0.077	
Southern	0.466	*	0.104		0.197	
Eastern	-0.011		0.344		0.164	
North Western	-0.021		0.03		0.215	
North Central	-0.123		-0.069		0.084	
Uva	0.21		-0.015		-0.162	
Sabaragamuwa	-0.435	**	0.197		0.146	
Ethnicity (relative to Sinhalese)						
Tamil	-0.258		-0.454	**	-0.301	*
Moor and other	-0.324	**	-0.413	**	-0.178	
Expenditure quintile (relative to richest)						
Poorest quintile	-0.587	**	-0.449	**	-0.579	***
2nd quintile	-0.522	**	-0.542	**	-0.486	***
3rd quintile	-0.259		-0.146		-0.216	
4th quintile	-0.563		-0.01		-0.205	
Employment of household head (relative to the public)						
Private	0.093		0.022		0.029	
Self-employed	0.321		0.229		0.12	
Not working	0.148		0.033		0.171	
Education of household head (relative to above secondary)						
Less than primary	-0.454		-0.228		-1.033	**
Less than secondary	-0.359		-0.136		-0.826	**
Passed O/L	-0.18		-0.123		-0.369	
Passed A/L	-0.255		-0.093		-0.369	
Time to primary school (in 10's of minutes)	-0.037					
Time to secondary school (in 10's of minutes)			-0.082	**	-0.037	
N	1,291		1,305		1,230	
Pseudo R2	0.102		0.091		0.085	

Source: Author's calculations based on HIES 2019 microdata.

9.3.4 COVID-19 and Education

The COVID-19 pandemic has undeniably had significant implications for education, and its impact must be considered when evaluating progress toward the SDG targets. As in many other countries, the pandemic caused large-scale disruptions to school education in Sri Lanka, affecting approximately 4.2 million (Mn) students. The immediate impact of the pandemic on education was widespread school closures, with schools conducting remote lessons at different intensities. However, students from remote and marginalised areas were disproportionately affected, while schools located in urban areas equipped with resources were able to deliver a better learning experience by experimenting and identifying feasible plans to overcome the challenges. In schools with resources, teachers were allocated based on a schedule to use online teaching devices and conduct lessons. Sometimes, multiple classes were combined, and the lesson was conducted by a teacher who had the competency to conduct online classes while the other teachers assisted in preparing assignments and remaining requirements.

During school closures, online lesson attendance gradually deteriorated over time in terms of student participation and engagement. The decline in participation corresponded to numerous reasons such as poor internet connectivity across the country and lack of devices – i.e. having to share limited devices with multiple siblings in a family. For example, only 40% of households with school-going aged children have access to the internet, with about 90% of them accessing the internet through mobile phones.[4] Unlike laptops/computers, engaging in online classes via mobile phones caused problems for online learning such as viewing on a small screen, eye fatigue, etc. Indeed, a significant digital divide exists across Sri Lanka (Table 9.3). In addition, parents have faced considerable financial constraints in acquiring new digital devices which became

The COVID-19 pandemic has undeniably had significant implications for education.

Table 9.3
Computer Ownership in Sri Lanka (%)

Sector	2016	2017	2018	2019
Sri Lanka	21.6	22.8	22.3	22
Urban	35.4	38.2	37.5	38
Rural	19.6	20.6	20	19.7
Estate	6.1	4.5	4.2	4.6

Source: Department of Census and Statistics (2019).

[4] UNICEF and UNESCO. (2021). *Sri Lanka Case Study: Situation Analysis on the Effects of and Responses to COVID-19 on the Education Sector in Asia.* New York: UNICEF and Paris: UNESCO.

costly in pandemic times, as well as rising data costs for connectivity. Low signals for internet connectivity in certain rural areas were another barrier to having access to online classes. All these would also impact students' choices between school lessons and tuition classes.

Attendance rates have varied by region. For example, a survey reveals that the average attendance for remote education across Uva, Central, East, and Northern Provinces was 51%; the highest attendance (67%) was reported in the Uva Province and the lowest (32%) was reported in the Central Province.[5] Moreover, student participation levels are found to vary by socioeconomic group and age group. For example, English medium students' class participation was higher than that of Sinhala medium students, corresponding to the differences in socioeconomic backgrounds. Participation in online classes was lesser among younger students, while participation from grade 9 and upwards was much higher.[6]

9.3.5 Quality of Remote Education

There are many concerns over the quality of school education during the pandemic, especially at the onset of providing services through online platforms. Since the school closure was a sudden decision, Sri Lanka was not prepared to integrate technology into the school system. Thus, the principals, teachers, students, parents, and related stakeholders faced numerous challenges in adapting and accommodating these changes. Some of the more difficult challenges faced by the teachers were conducting practical components of lessons or subjects in an online context, difficulties in monitoring the students given the lack of response from students too, and catering to students of different competency levels in a single class without weaker students being left behind and competent students being discouraged by a slower pace of study. Lack of meticulous attention and diversity to address the varying capacities of students in online classrooms were critical constraints in realising inclusive education that would otherwise have been achieved in physical classes.

Other factors such as problems in effectively communicating with students and maintaining their interest, challenges in helping the students to understand the subject matter and follow online lessons, dealing with mental stresses of students due to overloaded classes and pandemic-related challenges also impacted the quality of teaching. Students too tended to have an overall negative perception of online classes being less effective than onsite classes. Some of these perceptions were shortcomings in remote learning in terms of disrupted lessons due to connectivity and technical issues, failure to cover the syllabus as per the schedule due to the challenges in an online context, lack of student participation due to lack of inclusivity created by the digital divide, lack of comprehension, and accessibility issues faced within an online context.[7]

Learning losses for primary students are likely to be high during school closures considering

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[5] UNICEF and UNESCO. (2021). *Sri Lanka Case Study: Situation Analysis on the Effects of and Responses to COVID-19 on the Education Sector in Asia.* New York: UNICEF and Paris: UNESCO.

[6] Abayasekara, A., Perera, U., & de Silva, T. (n.d.). *Demand for Private Tutoring during COVID-19: An Initial Scoping Exercise for Sri Lanka.* Retrieved March 25, 2022, from Institute of Policy Studies of Sri Lanka: https://www.ips.lk/demand-for-private-tutoring-during-covid-19-an-initial-scoping-exercise-for-sri-lanka/

[7] *Ibid*.

their age and the need for diverse techniques to accommodate the online context to receive age-related skills and competencies. For example, primary students had the least digital access and required printed material.[8] Thus, not having nationally standardised guidelines to devise strategies to identify and cover the learning gaps of different age groups, is likely to have broader adverse impacts on students. Some other issues within the system are the risks of students getting addicted to online games and being subjected to online harassment.

Overall, support for online school education has been limited in financial, technical, or other terms during the pandemic. Thus, teachers had to adapt to the transformation, bear additional costs of conducting lessons on virtual platforms, and assist struggling students in numerous ways, which considerably aggravated their administrative burden. Schools too, have been unable to provide teachers with intensive technical training to ensure their skills and competencies to conduct online classes. Thus teachers, especially those close to retirement, have faced challenges in facing this technological transition. Another important observation is that the education system is female dominant with female teachers having to balance their household chores and online lessons, which were crucial at the onset of the pandemic.

The commitment to giving everyone an equal opportunity and leaving no one behind requires accelerated and targeted efforts to address the negative impacts of COVID-19 on dropouts and learning losses. However, with uncertainties related to school reopening, schools and provincial officers have been in a challenging position to gather information on the effectiveness and quality of online school education so far. A carefully planned assessment system was not formed to evaluate the learning levels and losses, and devise strategies to cover the gaps once the schools reopened. As the reopening of schools involved a hybrid method, issues with regard to online education delivery remained. Nevertheless, together with United Nations International Children's Fund, (UNICEF), the Ministry of Education has started planning a national recovery strategy, with trials being implemented in Uva and Central Provinces.[9]

9.4 Achieving Universal Health Coverage (UHC)

Achieving UHC involves all people receiving quality health services whenever required, without experiencing financial hardships. In other words, UHC is meant to ensure that all individuals and communities have access to quality essential healthcare services and safe, effective, and affordable essential medicines and vaccines without suffering financial hardships. Moving towards the UHC depends on the availability, accessibility, and health and care workers' capacity to deliver quality people-centred integrated care. In this context, this section first evaluates Sri Lanka’s progress towards UHC in terms of availability, accessibility, and its position on the UHC Effective Coverage Index. Thereafter, the discussion will focus on OOP spending since UHC aims to minimise financial hardships associated with receiving essential health services.

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[8] According to UNICEF and UNESCO (2021), only 39% of the primary students, 42% of the Ordinary Level (O-Level) students, and 53% of the Advanced Level (A-Level) students had access to digital facilities.

[9] UNICEF and UNESCO. (2021). *Sri Lanka Case Study: Situation Analysis on the Effects of and Responses to COVID-19 on the Education Sector in Asia.* New York: UNICEF and Paris: UNESCO.

9.4.1 Availability

Sri Lanka has achieved remarkable health outcomes in areas such as child immunisation, MNCH etc., due to effective policies and programmes implemented since independence. The foundation for these achievements is the policy of free health services covering the entire nation, commitment by all levels of medical and other related professional personnel, and a strong preventive and curative health infrastructure.

Preventive health services in Sri Lanka are considered one of its best healthcare achievements. The country's national immunisation programme is a successful and cost-effective public health intervention. Nearly 100% coverage of child vaccination and low incidence of related diseases show the success of such immunisation programmes. Overall, MNCH services provided by primary healthcare workers allowed Sri Lanka to do well on its MDG health targets (Table 9.1).

Curative services are structured in tiers ranging from teaching hospitals allied to universities, provincial, district, general, and base hospitals with different specialities to divisional hospitals (outpatient and inward care) equipped with non-specialist doctors and primary medical care units offering only outpatient care. Combined with the private sector facilities, the overall bed strength of the sector has improved to 3.85 beds per 1,000 population.[10]

Overall, Sri Lanka's public healthcare services indicate progress toward UHC. The General Service Readiness Index (GSRI) is a measure that combines information from five main domains of general service readiness. These

Table 9.4
General Service Readiness Index and Domain Readiness Scores (Out of 100)

Facility Type	Basic Amenities	Basic Equipment	Standard Precautions for Infection Prevention	Diagnostic Capacity	Essential Medicines	General Service Readiness Index
Overall average	91	90	84	45	83	79
Public sector	91	89	83	41	83	77
Public tertiary	97	96	96	76	96	92
Public secondary	96	96	91	76	94	91
Public primary	90	87	80	33	80	74
Private hospitals	92	94	88	62	81	83

Source: Ministry of Health, Nutrition and Indigenous Medicine and Department of Census and Statistics. *(2018). Service Availability and Readiness Assessment 2017 Sri Lanka.* Colombo: Ministry of Health, Nutrition and Indigenous Medicine.

[10] Rajapaksa, L., De Silva, P., Abeykoon, P., Somatunga, L., Sathasivam, S., Perera, S., . . . Weerasinghe, K. (2021). *Sri Lanka Health System Review.* New Delhi: World Health Organization Regional Office for South-East Asia.

Table 9.5
Readiness Score (Overall and by Domain) for Surgical Management Services

Facility Type	Staff and Guidelines Readiness Score	Equipment Readiness Score	Medicines and Commodities Readiness Score	Overall Readiness Score
Overall average	32	86	75	76
Public sector	42	94	86	85
Public tertiary	59	99	93	92
Public secondary	33	92	83	82
Private hospitals	25	80	67	69

Source: Ministry of Health, Nutrition and Indigenous Medicine and Department of Census and Statistics. (2018). *Service Availability and Readiness Assessment 2017 Sri Lanka.* Colombo: Ministry of Health, Nutrition and Indigenous Medicine.

are basic amenities, essential equipment, standard precautions, laboratory diagnostics, and essential medicines. The GSRI for public sector tertiary and secondary care hospitals are higher when compared to that of the private sector, indicating higher responsiveness of the public sector to complex and acute care (Table 9.4). Looking further at the readiness score by several other domains such as staff and guidelines, equipment, medicines and commodities, and overall readiness, public sector readiness is once again better compared to the private sector (Table 9.5).

The public sector quality is similar to that of the private sector services in diagnosis and case management. However, the private sector provides a better-quality service on convenience and choice of clients and in non-clinical aspects.[11] Whilst there has been considerable improvement in the infrastructure and facilities of public hospitals, the current economic turmoil is likely to lower the quality of services provided owing to a lack of medical essentials and barely having finances for maintenance.

In the context of health workers, Sri Lanka has almost achieved the World Health Organization (WHO) identified minimum density threshold of 34.5 skilled health personnel per 10,000 population, with 33 skilled health personnel for 10,000 population. Growth in the numbers of health personnel, mainly medical officers, dental surgeons and nurses compared to the other categories is observed. For instance, from 2005 to 2017, the number of nurses has grown by 128%, medical officers and dental surgeons by 94% and 54%, respectively. The ratio of doctors per 1,000 population has improved from 0.52 in 2005 to 0.92 in 2017. The ratio of nurses has doubled during the last decade, with a density of 2.12 nurses per 1,000 population by 2017. However, these values are low compared to more advanced countries such as the averages for the Organisation for Economic Co-operation and Development (OECD).[12]

9.4.2 Accessibility

Accessibility to free healthcare services is ensured with widespread public healthcare

[11] Rajapaksa, L., De Silva, P., Abeykoon, P., Somatunga, L., Sathasivam, S., Perera, S., . . . Weerasinghe, K. (2021). *Sri Lanka Health System Review.* New Delhi: World Health Organization Regional Office for South-East Asia.

[12] *Ibid.*

institutions. Nonetheless, there are differences in available facilities across districts despite having the desired level of care. Several districts do not have the full range of specialised services and the optimal staff size to provide services throughout the day, such as neonatology, obstetrics, and anaesthesiology. Further, there is a shortage of equitable access to specialised complicated healthcare services in the public sector, such as dialysis, cardiothoracic surgery, renal transplantation, and cancer care. People who need these services must be registered on a waiting list, thus sometimes leading to high OOP expenditure. Additionally, the public face issues in accessing public health services due to time constraints as service provisions and working hours of the general public overlap.

Healthcare services are distributed so that each district has one tertiary care facility, one or more secondary care facilities and much primary curative care, some with beds and others with only outpatient department (OPD) services. Within this healthcare system, any patient can access any institution, including tertiary healthcare facilities, without a prior referral. This results in underutilisation of primary healthcare services and crowding out of tertiary healthcare services, thus affecting the quality of services provided. Recently, a policy on healthcare delivery for UHC, an essential services package, was introduced that contemplates primary-level healthcare through direct contacts inclusive of a referral system, especially focused on non-communicable diseases (NCDs). A patient and family-centric approach will strengthen primary-level curative services through this. Further, comprehensive pre-pregnancy, antenatal, postnatal and childcare packages are available at clinics close to the residence and through domiciliary visits.

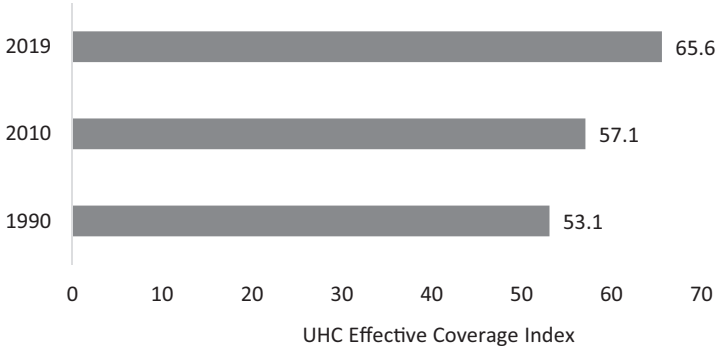
Sri Lanka shows lagging performance on effective coverage indicators for NCDs, suggesting that many health systems are not keeping pace with the rising NCD burden and associated population health needs.

9.4.3 UHC Effective Coverage

Sri Lanka's UHC Index was 65.6, which is well ahead of the global average of 60.3. Based on a systematic analysis for the Global Burden of Disease Study 2019, the UHC Effective Coverage Index was constructed for 204 countries from 1990 to 2019 to assess progress.[13] The UHC Effective Coverage Index comprises 23 indicators drawn across a range of health service areas (e.g. promotion, prevention, and treatment). It represents healthcare needs over the life course spanning from reproductive and newborn to

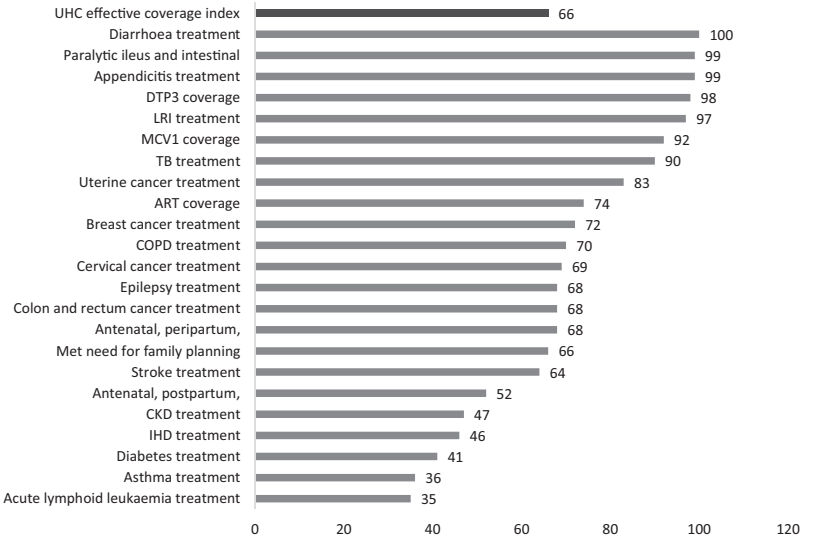
[13] Institute for Health Metrics and Evaluation. (2022). *Sri Lanka.* Retrieved March 10, 2022, from Institute for Health Metrics and Evaluation (IHME): https://www.healthdata.org/sri-lanka

Figure 9.2
UHC Effective Coverage Index, Sri Lanka



Source: Author's compilation based on Institute for Health Metrics and Evaluation (IHME), 2022.

Figure 9.3
Performance on the UHC Effective Coverage Index and Effective Coverage Indicators, Sri Lanka, in 2019



Note: The UHC Effective Coverage Index and individual effective coverage indicators are reported on a scale of 0–100.

Source: Author's compilation based on Lancet (2020, October 17). *Measuring Universal Health Coverage Based on an Index of Effective Coverage of Health Services in 204 Countries and Territories, 1990–2019: A Systematic Analysis for the Global Burden of Disease Study 2019.* 396, pp. 1250–1284.

older adults (≥65 years). Further, as discussed previously, Sri Lanka's UHC Index is better than its peers like India and the Philippines (Table 9.1). Sri Lanka has progressed well toward UHC, especially from 2010 to 2019 (Figure 9.2).

Sri Lanka's UHC Effective Coverage Index shows a higher score for preventive services. Especially, performance indicators related to MNCH are remarkably higher and on par with more advanced economies. Nevertheless, the country

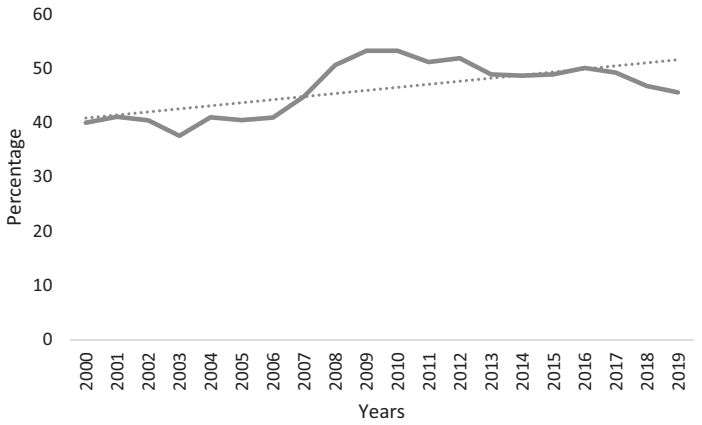
shows lagging performance on effective coverage indicators for NCDs, suggesting that many health systems are not keeping pace with the rising NCD burden and associated population health needs (Figure 9.3). Especially, the sluggish performance of UHC indicators representing treatments for acute lymphoid leukaemia, asthma, diabetes, ischemic heart disease (IHD) and chronic kidney disease (CKD) suggests that Sri Lanka's health systems and financing priorities are not moving as quickly as its epidemiological and demographic transitions.

9.4.4 Financial Risk Protection and OOP

Given Sri Lanka's free healthcare policy, the financial risk of accessing healthcare facilities remains at a considerably lower level. However, OOP expenditure is on the brink of constantly increasing due to supply-side constraints of public healthcare services. Coordination issues within government institutions, lack of finances, and financial mismanagement result in supply-side constraints that push people towards private sector medical services leading to increased OOP expenditure (Figure 9.4).

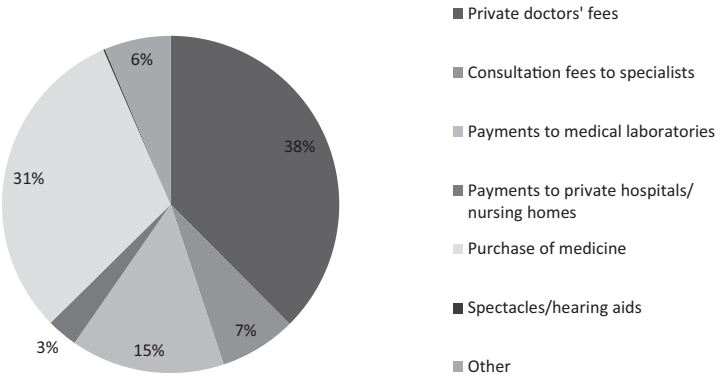
Most of the health OOP expenditures are incurred on private doctors' fees. Despite free healthcare services, households spend around 38% of their health OOP expenditure on doctors' fees (Figure 9.5). However, specialists' care accounts for only 7% of household health spending, which implies that in most cases, people need the doctors' basic service, which is available free of charge in all government hospitals. More importantly, the private doctors' fees are the main driver of health costs (50-60% of OOP) for lower income groups – the bottom 40% of households (Figure 9.6). On the other hand, a majority of private practitioners serve at public sector hospitals during the day. The main reason could be the opportunity cost, as public sector OPD service hours are limited, and if income earners of the family go to a government hospital, they have to take a day off from their workplaces. Another possible reason for seeking a private medical service is the supply-side shortage in the state sector. Although a range of NCD services such as

Figure 9.4
Out-of-Pocket Expenditure (% of Current Health Expenditure)



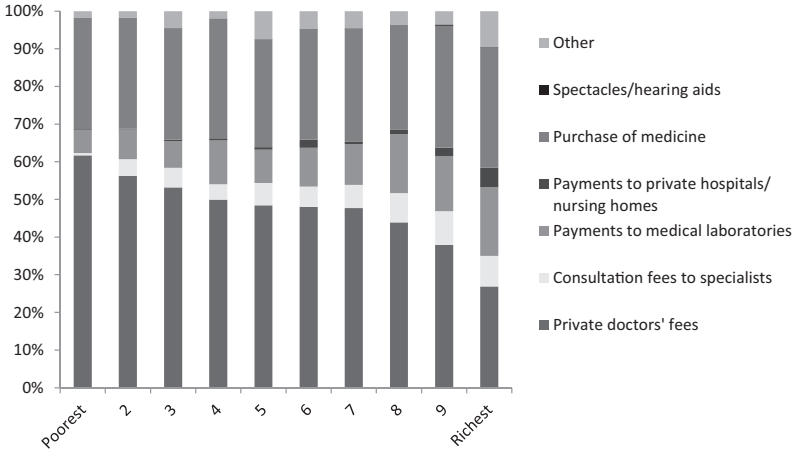
Source: Author's compilation based on World Bank. (n.d.). *World Development Indicators.* Retrieved April 1, 2022, from World Bank: https://databank.worldbank.org/reports.aspx?source=2&series=SH.XPD.OOPC.CH.ZS&country=

Figure 9.5
Out-of-Pocket Expenditure on Health



Source: Author's calculation based on HIES 2019 microdata.

Figure 9.6
Distribution of Out-of-Pocket Expenditure on Health, by Expenditure Deciles



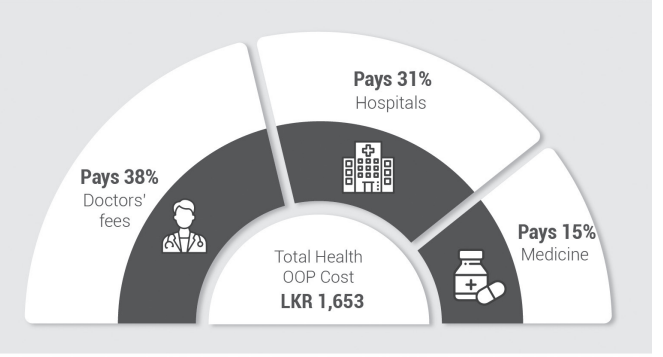
Source: Author's calculation based on HIES 2019 microdata.

cardiology and oncology are available, these are rationed due to limitations of specialised human resources, drugs or equipment in government hospitals.[14] As a result, people are pushed towards private healthcare services even if it is difficult to bear the cost.

The second largest driver of OOP healthcare costs is medicine. Households spend around one-third of their OOP health spending on medicine, although many families cannot afford the high rates, especially those undergoing treatment for chronic diseases. Yet, they end up spending

[14] Smith, O. (2018). *Sri Lanka: Achieving Pro-Poor Universal Health Coverage Without Health Financing Reforms.*Washington, D.C.: World Bank.

Out-of-Pocket (OOP)
Expenditure on Health



Source : Author's calculation based on HIES 2019 microdata.

a high price on medicines. Furthermore, it is clear that private doctor fees and medical costs are the main drivers of health costs for lower-income groups (Figure 9.6). Thus, the incidence of rising OOP expenditure is borne by those who cannot even afford it. The third highest health OOP expenditure is on medical tests, which account for 15% of health OOP expenditure. However, this cost is mainly in relation to better-off households (Figure 9.6).

9.4.5 Four Key Transition Challenges and their Impact on Progress Towards UHC

As discussed in the previous section, Sri Lanka has progressed toward achieving UHC. Nonetheless, the country is on the verge of facing many challenges in sustaining this progress given the four key transitions of disease, demography, domestic finance mobilisation, and donor finance, where the transitions are interdependent and integrated. The current economic turmoil and the pandemic are greatly affecting the healthcare system by weakening its capacity and financial space to face future challenges caused by the four key transitions.

Sri Lanka shows lagging performance on effective coverage indicators for NCDs, suggesting that many health systems are not keeping pace with the rising NCD burden and associated population health needs.

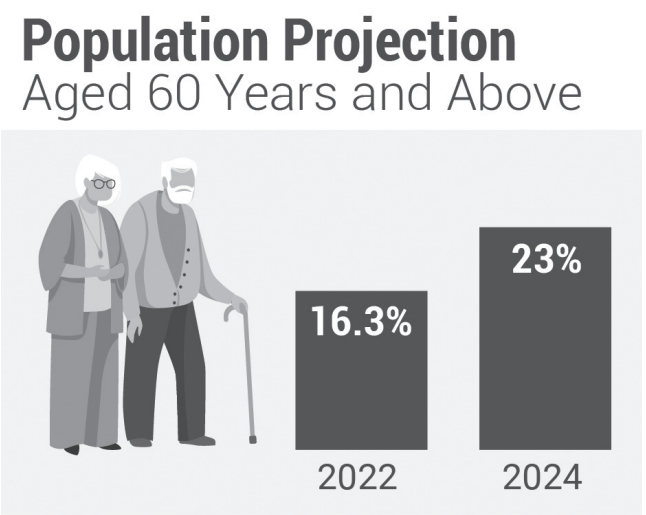
Demography

Sri Lanka is one of the fastest ageing countries in Asia. The population above 65 years has grown substantially from 3.7% (in 1970) to 10.8% (in 2019). According to population projections, the share of the population 60 years and above will reach 16.3% by 2022 and 23% by 2024. One in every four persons will be 60 years or above by 2052, amounting to another 4 Mn old age persons from 2012 to 2052. Another important feature of the demographic transition is the feminisation and higher life expectancy of females at birth (78.6 years) compared to males (71.9 years).[15]

disability, while 30% experience three or more. This calls for increased domiciliary care.

Diseases

Sri Lanka successfully eliminated infectious diseases like malaria, polio and neonatal tetanus and is ready to eradicate vaccine-preventable diseases like measles and rubella owing to the availability of free healthcare services and primary healthcare services coverage. In addition, these remarkable achievements were made with public and private spending of around 4% of gross domestic product (GDP) compared to a global



Source: Compilation based on population and housing projections 2012-2062.

More than half of the old-age population has physical and or mental impairments. Among them, about 22% have visual difficulties, 11.3% have hearing impairments, 19.4% have walking difficulties, and 8% have cognitive dysfunction. Additionally, 19% of the population of 80 years and above are unable to take care of themselves, with 60% of them experiencing at least one

average of 9.8% in 2019.[16] Meanwhile, MNCH is well controlled too. Nonetheless, the country is currently facing a double burden of an ageing population coupled with an increase in NCDs. Considering the population of 60 years and above, 45% are experiencing at least one NCD, which is mainly associated with cardiovascular disease, cancer, diabetes mellitus, arthritis, dementia,

[15] Rajapaksa, L., De Silva, P., Abeykoon, P., Somatunga, L., Sathasivam, S., Perera, S., . . . Weerasinghe, K. (2021). *Sri Lanka Health System Review.* New Delhi: World Health Organization Regional Office for South-East Asia.

[16] World Bank. (2022). *World Development Indicators.* Retrieved March 10, 2022, from World Bank https://databank.worldbank.org/source/world-development-indicators

depression, and Alzheimer's.[17] Further, the age-standardised prevalence of tobacco use among 15 years and older persons accounts for 22.9% in 2018, which is another risky trend.[18] An increasing trend of young people getting diagnosed with NCDs like diabetes and hypertension is noted. Road injuries have also become a growing burden on the healthcare system.

These emerging NCDs will require changes in the medical facilities, sustained use of expensive drugs, new approaches to service delivery and improved infrastructure that will need investments over the years. Yet, there is much concern over well-developed paediatric care and maternal and child hospitals, which must be diverted to face the demographic and disease transition. It is questionable whether healthcare spending would be sustainable with increased pressure exerted on domestic health financing by the pandemic and deteriorating fiscal space, causing further uncertainties over the rising financing requirements in future.

Domestic Finance

Deteriorating fiscal space for general healthcare facilities amidst the increasing financial needs to face the demographic and disease transition is a major challenge that Sri Lanka faces. Although monetary allocations for the health sector have expanded over time, the share of government spending on health remained constant due to macroeconomic constraints (Figure 9.7). Domestic general government health expenditure as a percentage of GDP accounted for an average of 1.85% during 2000-2019.[19] A major proportion (80%) of this limited finance is spent on recurrent expenditure in the form of salaries, and too little room is left for capital expenditure. In these circumstances, the country had to tackle the COVID-19 pandemic with a quarantining process, testing, and vaccination, and simultaneously manage the general healthcare functions. Given all this, the challenge of facing disease and demographic transitions that require higher investments in personalised healthcare, high-quality medicine, domiciliary care backed with community nursing, laboratory equipment and medical insurance, is escalating.

Lack of strategic planning is contributing to these challenges. Weak planning is caused by the lack of a proper needs assessment mechanism, technical capacity, coordination among institutions, and inadequate financial and human resources. Poor planning and insufficient forward-thinking result in inadequate budget allocations causing unnecessary delays, poor service delivery, and mismanagement of the limited budget. These reflect the limited focus on disease and demographic transitions in financial decision-making. Further, non-medical accounting staff are not given enough authority over managing finances, with medical staff having limited knowledge about financial issues. Existing training programmes on financing too have not been successful.[20] These are the main reasons for the mismatch between available finances and needs, along with the lack of awareness of issues among top officials, the poorly planned system

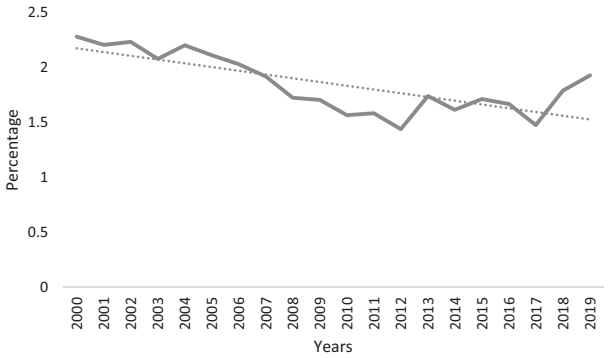
[17] Rajapaksa, L., De Silva, P., Abeykoon, P., Somatunga, L., Sathasivam, S., Perera, S., . . . Weerasinghe, K. (2021). *Sri Lanka Health System Review.* New Delhi: World Health Organization Regional Office for South-East Asia.

[18] World Health Organization. (2021). *World Health Statistics 2021: Monitoring Health for the Sustainable Development Goals.* Geneva: World Health Organization.

[19] World Bank Group. (2022, January 30). *Domestic General Government Health Expenditure (% of Current Health Expenditure).* Washington, D.C.: World Bank.

[20] Abayasekara, A., Bharali, I., De Silva, T., Moa, W., Yamey, G., & Arunatilake, N. (2021). *Identifying the Knowledge, Capacity, and Policy Gaps in the Face of Sri Lanka's Health Transitions and Journey Towards Universal Health Coverage:* A Qualitative Analysis. Colombo: Institute of Policy Studies of Sri Lanka and Durham, North Carolina: The Center for Policy Impact in Global Health.

Figure 9.7
Domestic General Government Health Expenditure (% of GDP)



Source: Author's compilation based on World Bank. (n.d.). *World Development Indicators.* Retrieved April 1, 2022, from World Bank: https://databank.worldbank.org/reports.aspx?source=2&series=SH.XPD.GHED.GD.ZS&country=

for financing and forecasting and the economic uncertainty over the last couple of years.

The economic uncertainty and related shortage of critical foreign currency affect the importation of necessary medical supplies as most medicines are imported. This has already created a lacuna in the availability of quality essential medicine for NCDs and other diseases and essential medical services such as surgeries. In addition, power outages that last for many hours of the day due to fuel shortages lead to severe issues where surgeries and other hospital functions are disrupted, and patients are at risk due to a lack of essential medications.

The foreign exchange crisis is also propelling rising costs of private healthcare services. Thus, the availability of medical services has become a critical concern causing major challenges for UHC progress. By mid-2022 alone, the government increased the prices of 60 medicines for the second time in two months, by 29% in March and again by 40% at the end of April 2022.[21] These challenges are not rooted in the healthcare system itself; rather, it is a result of the economic chaos impacting the performance of the healthcare system. In this context, state health services are likely to see a dampening of service quality with a lack of medical essentials and barely having finances for maintenance to upkeep the healthcare system. Thus, investments become a luxury, despite being essential.

Donor Finance

With Sri Lanka on the path to reaching a UMIC status and having an advanced healthcare system on par with more developed countries, external donor financial support for health was becoming more limited and constituting a smaller portion of the overall health budget. Donor financing is mostly channelled through the government sector, and sometimes through non-government organisations (NGOs) that engage in specific aspects of healthcare. Transfers from foreign governments and NGOs constitute a smaller proportion of revenue compared to government contributions. Thus, the total net

[21] The Sunday Times. (2022, May 01). *Prices of 60 Essential Drugs Increased Again; This Time by 40 Percent.* Retrieved June 30, 2022, from Sunday Times: https://www.sundaytimes.lk/220501/news/prices-of-60-essential-drugs-increased-again-this-time-by-40-percent-481563.html

official development assistance (ODA) to medical research and basic health sectors per capita was United States Dollars (USD) 0.76 in 2019. This is much less than donor funding for less developed countries like Bhutan at USD 7.6, Afghanistan at USD 6.9, and Nepal at USD 2.4, while UMICs like Thailand and Malaysia obtain less than Sri Lanka.[22]

Nevertheless, considering the current economic crisis, Sri Lanka needs donor finance more than ever. Accordingly, the Ministry of Health (MOH) with the WHO is considering implementing a joint bank account to ensure better transparency, and to accept financial assistance from the rest of the world. Correspondingly, positive responses were received from many countries, including China, to disburse USD 25 Mn worth of drugs and medical equipment, Bangladesh assistance worth USD 2.3 Mn, and Indonesian medical assistance worth USD 1.5 Mn. In addition, India has been helpful by providing 25 Mn tonnes (Tn) of medical supplies worth Sri Lankan Rupees (LKR) 260 Mn as a donation. France too has provided Euro 300,000 worth of anaesthetic and respiratory medicines.[23]

Disappointingly, even these limited funds are not used efficiently to build a resilient and sustainable healthcare system, as noted previously, due to a lack of capacity to conduct a proper needs assessment and efficient allocation of available resources. For instance, the Committee on Public Enterprises (COPE) revealed that USD 300 Mn worth of funds from international agencies like the World Bank, WHO and the Indian credit line were not duly allocated for the importation of essential medicines despite the acute drugs shortage. It was further revealed that only USD 92.9 Mn was recommended for payments by May 2022, from USD 200 Mn of financial assistance received from the Indian credit line.[24] Such weaknesses lead to mismatches between the government needs and donor offers. The lack of an inbuilt monitoring mechanism to assess the return on investments leads to inefficient and underutilisation of donor financing and unsustainable projects in the long run, that require higher recurrent expenditure once the donors leave. As such, authorities may not be aware of the critical aspects of the road ahead for effective and quality healthcare services for all with minimal disruptions.

9.5 Conclusion and Policy Implications

Addressing Inequities in Access to Quality Education

Improving the quality of education is imperative to achieving SDGs. However, inequities in access to quality education at higher grades are evident in Sri Lanka. Further, access to education is shallow at the senior secondary and collegiate levels. Therefore, it is necessary to improve access to education at the higher levels of education. On the other hand, the quality of schools needs to be improved. For example, about 15% of the students do not complete compulsory education at the appropriate age, while wide disparities are noted in school completion rates across income groups, male children, sectors, and provinces. Thus, it is crucial to address lower completion rates for

[22] World Health Organization. (2022). *The Global Health Observatory.* Retrieved May 31, 2022, from World Health Organization: https://www.who.int/data/gho/data/indicators/indicator-details/GHO/total-net-official-development-assistance-to-medical-research-and-basic-health-sectors-per-capita

[23] Rubatheesan, S. (2022, May 29). *Joint Account with WHO to Obtain Urgent Medical Aid.* Retrieved May 30, 2022, from the Sunday Times: https://www.sundaytimes.lk/220529/news/joint-account-with-who-to-obtain-urgent-medical-aid-484256.html

[24] Siriwardana, A. (2022, June 01). *Funds Received for Drug Purchase Not Properly Utilised:* COPE Reveals. Retrieved June 2, 2022, from Daily Mirror: https://www.dailymirror.lk/latest_news/Funds-received-for-drug-purchase-not-properly-utilized-COPE-reveals/342-238190

major education cycles and improve access to quality education in deprived regions. Hence, the government needs to carefully plan and examine the education sector's present needs critically and find effective means of catering to these needs by improving resource mobilisation of education services. These are to be supported by effective monitoring and evaluation systems in place to achieve positive outcomes.

Current levels of exclusion and the number of school dropouts are likely to grow due to the impact of the pandemic. This is further exacerbated by the current economic crisis, which is causing major issues in the attendance and functioning of the school system. Therefore, measures must be taken to overcome student dropouts from formal education and widen pre-pandemic disparities. Overall, this section discusses possible policy options through the lens of the overarching theme of universal education while also considering the impact of the pandemic and the economic crisis.

To prevent learning losses, education authorities should adjust the curriculum. Learning losses may grow if the curriculum and teaching do not adjust to meet students' learning needs. Proven techniques for promoting foundational learning include consolidating the curriculum, extending instructional time, and making learning more efficient through targeted instruction, structured pedagogy, small-group tutoring, and self-guided learning programmes.[25] In addition to recovering lost learning, such measures can improve learning outcomes in the long run.

Children who missed school due to pandemic situations can be offered catch-up opportunities to continue their education with their peers. Special catch-up programmes and teacher support could enhance bridging gaps and reaching the same level of competencies as previous generations that were not exposed to the pandemic. Teachers will also have to be supported to play a greater counselling and communications role in providing psycho-social support and communicating with students and their parents about the learning crisis and continuity in education.

The government can take some immediate measures to facilitate uninterrupted education services. Special school transport services should be arranged to overcome transport issues faced by students and teachers, and thereby ensure the smooth functioning of schools. In addition, subsidised school transport facilities should be prioritised for deprived regions. Other measures such as continuing the school meal programme should be encouraged to improve school attendance and the nutritional status of poor children. Partnerships with NGOs like the World Food Programme (WFP), UNICEF and other entities to revitalise the free school meal programme can ease the fiscal burden on the government.

Beyond the immediate recovery, much more must be done to enhance equity in access to quality education. The findings suggest that particular attention should be given to improving school cycle completion among poorer and deprived groups. The distribution of public spending on education can be improved, with public expenditure directed as a priority toward schools serving children from poorer households to meet investments in essential learning spaces and the human resource needs of poor schools. Initiatives to deploy equity-based funding mechanisms and use of equity indices to target the most vulnerable and marginalised are recommended.

[25] World Bank, UNESCO and UNICEF (2021). *The State of the Global Education Crisis:* A Path to Recovery. Washington D.C.: World Bank, Paris: UNESCO, and New York: UNICEF.

Sri Lanka faces many challenges in sustaining the progress made towards achieving universal health coverage, given the four critical transitions of disease, demography, domestic finance mobilisation, and donor finance, where the transitions are interdependent and integrated.

These measures will help to combat exclusion with targeted investment and actions. This ensures that the national education budget is utilised through a transparent and equity-based formula, whereby funds are allocated to support under-resourced areas such as the estate sector. Further, promoting decentralised accountability and providing comprehensive school support for local actions and solutions are critical. It is also crucial that the teachers are equitably allocated and managed, to ensure that the most disadvantaged children are prioritised.

The findings indicate that with the current free education system for all, more affluent people benefit more from higher grades of school education, as many children from lower-income groups abandon school life after O-Levels. Thus, policies should look at ways to widen access to higher grades of education for poorer students. The existing policies on providing free textbooks and uniforms should be continued, especially for children from more impoverished communities. In addition, scholarships should be provided to deserving children from poorer families to continue their education. Given the lower enrolment rates for A-Levels, introducing more targeted financial assistance programmes for needy students to follow A-Levels can be considered. At the same time, the need for private tuition should be minimised by improving the quality of education at the collegiate level and reducing the competitiveness of the A-Level exam.

To bridge the skill gaps, compulsory technical training is recommended for school leavers after O-Levels. Particular attention should be given to school leavers who do not succeed at their O-Levels. Awareness campaigns, with the involvement of vocational training authorities, private sector institutes, etc., are useful. In addition, the institutional capacities for delivering vocational training programmes should be upgraded to cater to labour market requirements, whereas public-private partnerships (PPPs) should be explored to improve technical education and the vocational training (TEVT) sector in Sri Lanka.

Achieving UHC, Including Financial Risk Protection

The current economic crisis will impose challenges in progressing to UHC. The crisis is affecting the importation of necessary medical supplies, which in turn creates a lacuna in the availability of quality essential medicine for NCDs and other diseases and essential medical services such as surgeries. This has meant that surgeries and other hospital functions are disrupted, and patients are at risk due to a lack of essential medications. Furthermore, amidst the depreciation of the LKR, OOP payments have become even higher.

Due to funding limitations under the current fiscal constraints, prioritising activities is essential. Immediate attention has to be on expediting the process of securing drugs and medical equipment in short supply. The proposed joint bank account with the WHO and the MOH for better transparency could attract assistance from foreign sources to overcome the current forex crisis. Indeed, a systematic National Health Accounts (NHA) to integrate the funding process involving state and other agencies, including development partners, and budgeting for activities would enhance health sector funding in the long run. In doing so, it is crucial to increase efficiency gains and ensure value for money in health spending by reducing the fragmentation of funding flows and parallel administrative arrangements.

Tax policy too can indirectly serve as a measure to support health-related objectives. It is necessary to mobilise domestic revenue through non-regressive and pro-poor taxes. According to the WHO, taxation of tobacco and sugar-sweetened beverages (SSBs) can discourage their consumption and as such, is an effective means of preventing NCDs. Given the current fiscal constraints, one option is to consider expanding 'pro-health taxes' such as those on alcohol, tobacco and SSB, which can be expanded to products with salt and trans fats that are harmful to human health. Such taxes address funding needs and add value to health policy efforts to tackle NCDs and other unhealthy consumer behaviour.

Beyond these immediate measures, long-term strategic planning is vital to building a resilient and sustainable health system toward achieving UHC. Sri Lanka's health sector needs are changing mainly due to the disease, demographic and domestic finance transitions. Findings reveal slow progress on various NCDs has severely hindered progress on effective UHC coverage in Sri Lanka. Thus, quality health services for NCDs should be better prioritised where the health system could increasingly deliver the most improved outcomes via adequate coverage of interventions and services. In addition, assessments of effective UHC coverage should apply beyond the national level, aiming to capture inequalities in potential health gains at the regional level and other important sociodemographic dimensions.

Re-orienting the country's health system towards providing adequate health services for NCDs is not trivial. There has been limited scope for the technological development, equipment used, and health workforce training owing to funding constraints. Unless deliberate efforts are taken to recalibrate health-system and funding priorities, the ability to alter current trajectories for effective UHC coverage could diminish. Coordinated knowledge generation and policy formulation, technical capacity building and policy coordination are vital to accelerating UHC progress.

The burden of health OOP expenditure too hinders the UHC goals. With a rapidly ageing

population and the increasing demand for long-term care, household welfare can be further burdened. Therefore, an essential first step is providing a vital health service package for all, addressing the multiple gaps in the system that hinder effective UHC. To overcome the financial burden of OOP payments, it is necessary to improve the quality of health services in target populations and extend insurance coverage.

Improving access to free healthcare services is necessary. The government can consider expanding OPD services, especially in rural areas allowing flexibility to income earners of the family. Measures should also be taken to update the medical service regulations. For example, similar to price controls for essential drugs implemented in 2016, specific price regulations can be considered on the most critical healthcare services such as private medical practitioner fees, medical tests, etc. To improve the accountability of private doctor consultations, the introduction of a government-authorised receipt system can be considered. This type of integrated system will eventually capture private doctor channel consultations and fees, thus enhancing the income tax collection system of the country as well.

10. Trade under Climate Change Conditions and Sustainable Development

10.1 Introduction

When the Sri Lankan economy is undergoing its most severe crisis with rising concerns about food security brought on by domestic and global factors, long-term recovery measures must recognise the crucial impacts of climate change. A contracting economy, low growth prospects, and an increased policy push for domestic food production will incentivise further resource allocation to the climate-change vulnerable agriculture sector. Given that the labour force employed in the agriculture sector is already disproportionately large, future climate change impacts will intensify rural poverty and the demand for state assistance to cope with the effects.

Climate-related hazards and natural disasters will be more frequent due to climate change worldwide. The availability and affordability of food will be impacted which is critical for the food security of net food importers. Climate change will also alter the traditional comparative advantage of countries, impacting their trade patterns through adjustments in export and import baskets. Trade is a potential vehicle to mitigate the impact of climate change on crop and livestock production, which are the primary livelihoods of the rural poor. Climate change-induced low production in agriculture will demand measures to strengthen rural agricultural producers' resilience and adaptive capacity.

Sri Lanka's poverty rate is highest in the estate sector. Thus, a negative impact of climate change on crop productivity will fall disproportionately on rural farming households and households in the export agriculture sector.

Sri Lanka embarked on structural adjustment by opening the economy in 1977. The economy's heavy dependence on agriculture reduced gradually thereafter with the diminished role of agriculture being more prominent in the country's export basket. The share of agricultural raw materials in the merchandise export basket reduced from 21% in 1976 to just 3% in 2021. A similar pattern exists for food exports. However, agriculture remains a vital employment sector as around a quarter of the labour force remains in agriculture-related livelihoods. Like elsewhere, people employed in agricultural livelihoods live in predominantly rural areas where the poverty rate is relatively high. In addition, the poverty rate is highest in the estate sector – tea being a major agricultural export where Sri Lanka enjoys a comparative advantage. Thus, a negative impact of climate change on crop productivity will fall disproportionately on rural farming households and households in the export agriculture sector. However, the vulnerability of the sectors depends on the direction of the price and productivity change movements and the relative importance of agricultural income and food expenditure in income and expenditure of households, respectively. Food producers and workers are not the only groups affected, but consumers who are net food purchasers too will be affected. The net caloric purchasers will witness reduced purchasing power in case of a price hike due to supply disruptions from climate change.

Thus, identifying the role of trade in a world subject to climate change impacts, the required policy changes to increase global integration that can minimise the adverse effects of climate change, and the challenges that policymakers face are important. The electoral importance of a large share of voters in the agriculture sector disincentivises reforming Sri Lanka's protectionist tariff structure. But, attempts to protect the agriculture sector will keep domestic food prices high. The outcome will be creating a significant and vulnerable to climate change labour force in the agriculture sector. In addition, restrictive trade policies will inhibit specialisation in areas with comparative advantage, negatively affecting economic growth, and reducing the country's ability to mitigate and adapt to climate change. Thus, investigating the policy options at the disposal of policymakers under challenging economic conditions to push forward trade policy changes that increase integration into the global market is essential.

The rest of this chapter is organised as follows. The following section will discuss the linkages between trade and poverty, economic growth and climate change. It is followed by a discussion of the role of trade in achieving Sustainable Development Goals (SDGs) in the Sri Lankan context. The impact of climate change on Sri Lanka's agricultural production, Sri Lanka's vulnerability to climate change and readiness, and how trade policy affects the food security situation of the country are discussed in detail. Finally, major policy issues are identified and solutions are suggested.

10.2 Trade, Climate Change and SDGs

In 2015, the United Nations member states adopted SDGs that covered all areas of human development and the environment. However, the importance of trade in achieving the SDG targets is not explicit compared to the relatively visible role of trade in the Millennium Development Goals (MDGs).[1] Nevertheless, countries can

[1] Messerlin, P. (2017). From MDGs to SDGs: The Role of Trade. In M. Helble, & B. Shepherd (Eds.), *Win-Win: How International Trade Can Help Meet the Sustainable Development Goals* (pp. 9-31). Tokyo: Asian Development Bank Institute.

leverage trade to achieve SDG goals by reaching trade-related targets. The pro-growth and pro-poor characteristics of trade further enhance its role in realising the SDGs. In addition, the role of trade in mitigating climate change effects is vital, underlying the scientific consensus that the consequences of climate change can be economically harmful.

Trade is a potential mechanism that delivers each SDG goal.[2] However, there is no specific goal related to trade integration among the 17 SDGs, although trade has generated unprecedented economic growth and lifted millions out of poverty. The few references to SDG trade-related objectives include promoting a rules-based multilateral trading system and increasing market access through duty-free and quota-free trade regimes for the least developed countries (LDCs) to double their export market share.

In addition to the direct references, trade indeed helps achieve other goals as outlined in Table 10.1. Significantly, international trade can increase national income through efficient resource allocation and allow countries to exploit comparative advantages through integration into the global market. Moreover, trade can be pro-poor through two channels. The first is through increased national income. Second, openness to the international flow of goods and services increases national income and enables progress on resource-intensive development issues.

The link between rural poverty and climate change too is straightforward, given that rural households worldwide are more exposed to the vagaries of climate change. Extreme weather events – for example, storms and severe flooding – are destructive to crop and livestock production, which are the primary livelihoods of rural households. Trade is pivotal in transporting products from surplus areas to deficient areas within and between countries to help eliminate hunger and mitigate climate change impacts. Food trade between surplus and deficient regions will alleviate nutrition deficiencies, increase the resilience of communities in coping with food security issues and improve economic efficiency through better resource allocation. Trade enables rapid recovery from extreme weather events,

Food trade between surplus and deficient regions will alleviate nutrition deficiencies, increase the resilience of communities in coping with food security issues and improve economic efficiency through better resource allocation.

[2] Helble, M., & Shepherd, B. (2017). *Win-Win: How International Trade Can Help Meet the Sustainable Development Goals.* Tokyo: Asian Development Bank Institute.

compensating lost production, and facilitates adaptation to climate change through technology trade. Moreover, the comparative advantage of developing countries in low-carbon sectors can be harnessed by linking domestic producers to the global market.

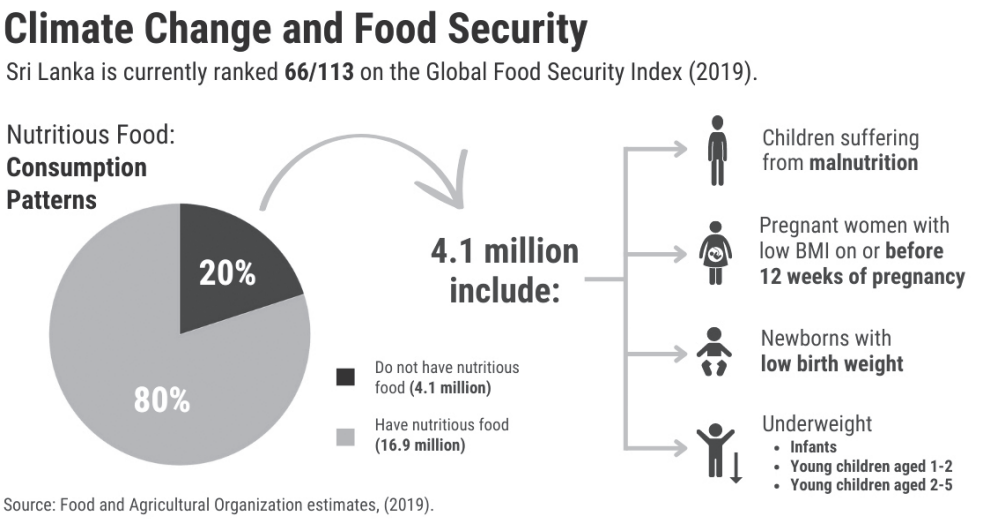


Table 10.1
Most Trade-relevant SDGs and Targets

Goal	Trade-relevant Target	Targets that Trade has a Role to Achieve
Goal 1: End poverty in all its forms everywhere		By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other shocks
Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture	Correct and prevent trade restrictions and distortions in world agricultural markets in accordance with the mandate of the Doha Development Round	By 2030, end hunger and ensure access by all people, particularly the poor and people in vulnerable situations
		By 2030, end all forms of malnutrition
		By 2030, double the agricultural productivity and incomes of small-scale food producers
		Adopt measures to ensure the proper functioning of food commodity markets to help limit extreme food price volatility

Goal	Trade-relevant Target	Targets that Trade has a Role to Achieve
Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Increase aid for trade support for developing countries, mainly the LDCs	Sustain per capita economic growth of at least 7% gross domestic product (GDP) growth per annum in the LDCs
		Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high value-added and labour-intensive sectors
Goal 10: Reduce inequality within and among countries	Implement the principle of special and differential treatment for developing countries, in line with the World Trade Organization (WTO) agreements	By 2030, progressively achieve and sustain income growth of the bottom 40% of the population at a rate higher than the national average
Goal 13: Take urgent action to combat climate change and its impacts		Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
Goal 17: Strengthen the means of implementation and revitalise the global partnership for sustainable development	Promote a universal, rules-based, open, non-discriminatory and equitable multilateral trading system under the WTO	
	Significantly increase the exports of developing countries	
	Realise timely implementation of duty-free and quota-free market access on a lasting basis for all the LDCs, consistent with the WTO's decisions	

Source: Authors' compilation.

10.2.1 Trade and Poverty

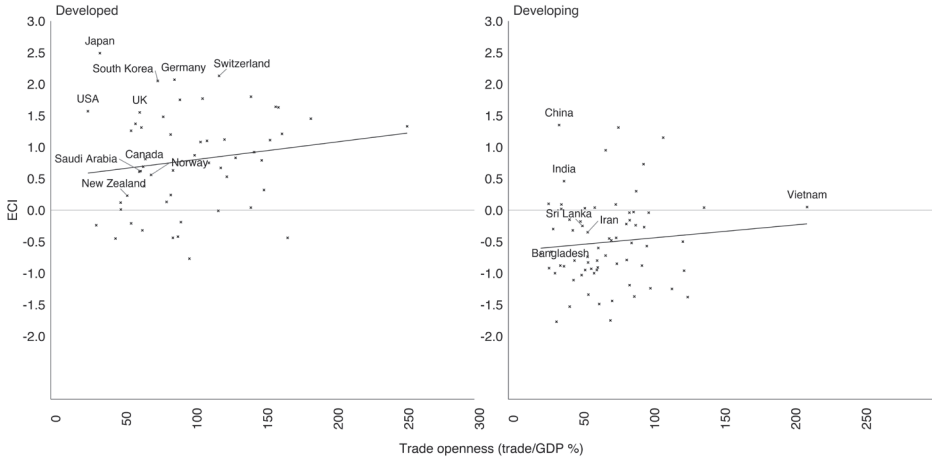
Trade weighs more in alleviating poverty (SDG 1), eliminating hunger (SDG 2), and mitigating climate change impacts (SDG 13). International trade is found to be pro-growth,[3] thus, having a direct relationship with poverty alleviation.

The impact of trade on poverty alleviation is not always positive as trade involves substantial adjustment costs to import-competing sectors of the economy. Furthermore, trade benefits may not reach the poor if they are not connected to markets. Lower mobility of the rural poor and lower skill levels – mainly owing to lower

[3] Frankel, J. A., & Romer, D. (2017). Does Trade Cause Growth?. In *Global Trade* (pp. 255-276). London: Routledge.

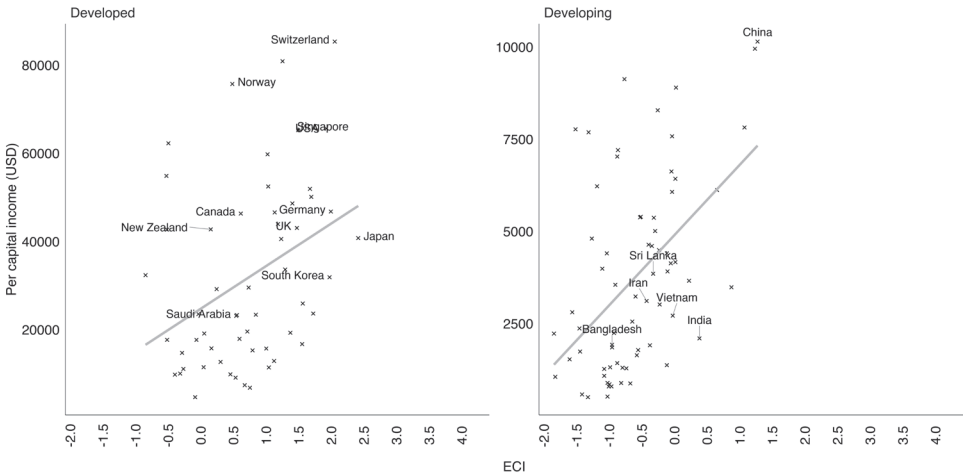
levels of education – can often deprive them of trade benefits. Consequently, although trade liberalisation might reduce national poverty levels, the decline can be much less in rural areas that are more exposed to import competition. The implication of these is that the effects of trade will depend on the sector (rural vs urban), labour force characteristics (gender and skill levels), the sector of work (formal or informal), and the industry. Thus, trade integration should be coupled with complementary policies, including adequate safety nets for the worst-off populations and training opportunities for the low-skilled rural labour force.

Figure 10.1
Correlation between Trade Openness and Economic Complexity Index (ECI) of Developed and Developing Countries



Source: Authors' illustration using Atlas of Economic Complexity-Harvard CID and World Development Indicators (WDI).

Figure 10.2
Correlation between Economic Complexity Index (ECI) and Per Capita Income of Developed and Developing Countries



Source: Authors' illustration using Atlas of Economic Complexity-Harvard CID and World Development Indicators (WDI).

The net impacts of trade are desirable. International trade helps developing countries diversify into highly complex, value-added sectors and take advantage of comparative advantage in the labour-intensive sectors. Generally, developing countries are characterised by low levels of economic complexity, implying low economic diversification.[4] Trade openness will help open the international market to domestic firms, stimulating new economic activities in complex sectors.

Notably, a positive correlation exists between trade openness and the economic complexity of a country (Figure 10.1). Empirical research has established causality between trade openness and economic complexity in developing countries.[5] Economic complexity, in turn, is positively correlated with per capita income, where causality is also established.[6] These imply that the increasing complexity of economic activities will generate high-income growth (Figure 10.2). Thus, trade directly promotes sustained economic growth (SDG 8).

Additionally, fragmented production networks that extend across borders – global value chains (GVCs) – enable developing countries to specialise in a component of production instead of producing the complete product, which is not feasible due to technological and resource constraints faced by the developing countries. Specialisation increases the sophistication of the production structure, paving the way for more complex economic activities of countries vital for future economic growth. Hence, developing countries should be keen to design trade policies to promote integration into the global market. It is found that the LDCs are more involved in GVCs than assumed to be, while trade integration attempts like regional trade agreements (RTAs) positively affect participation in GVCs.[7]

While trade positively affects growth, trade policy affects poverty by altering the behaviour of households as poverty, which in a microeconomic sense, is a household or individual phenomenon.

While trade positively affects growth, trade policy affects poverty by altering the behaviour of households as poverty, which in a microeconomic sense, is a household or individual phenomenon.

[4] González, A., Ortigoza, E., Llamosas, C., Blanco, G., & Amarilla, R. (2019). Multi-criteria Analysis of Economic Complexity Transition in Emerging Economies: The Case of Paraguay. *Socio-Economic Planning Sciences,* 68, 100617.

[5] Nguyen, C. P., & Su, T. D. (2021). Economic Integration and Economic Complexity: The Role of Basic Resources in Absorptive Capability in 40 Selected Developing Countries. *Economic Analysis and Policy, 71,* 609-625.

[6] Jarreau, J., & Poncet, S. (2012). Export Sophistication and Economic Growth: Evidence from China. *Journal of Development Economics, 97*(2), 281-292.

[7] Balié, J., Del Prete, D., Magrini, E., Montalbano, P., & Nenci, S. (2019). Does Trade Policy Impact Food and Agriculture Global Value Chain Participation of SubSaharan African Countries?. *American Journal of Agricultural Economics, 101*(3), 773-789.

For example, trade liberalisation changes consumer and producer prices faced by households. In addition, trade liberalisation brings changes in wages, production incentives, crops and livestock production, and labour supply.

Simple economic models can be used to explain the impact of trade policy on household welfare. An agricultural household that both produces and consumes is affected by trade policy-induced price changes through consumption and production. The net outcome is based on whether a household is a net producer or a net consumer. For example, after a price increase of a commodity, net consumers – defined by the difference between budget shares and income shares – are worse off, and net producers are better off. If there is a price decrease, net consumers are better off, but net producers are worse off. The impact at the national level is equivalent to the patterns at household levels. A trade policy change that increases international commodity prices will benefit the commodity exporters while the commodity importers will be adversely affected.

The above-described framework can be used to explain the impact of commodity price movements due to climate change. As the altered productivity will determine the price movements, households will be affected based on whether they are net consumers or producers. The dual burden on the policymaker – i.e. compensating for the producers' and consumers' welfare losses – is heavy.

More importantly, trade policies biased towards producers – i.e. increased protection – will generate adverse distributional costs on net consumers generally living in urban and suburban areas. Likewise, the net impact of tariff cuts will be determined by consumption size and income effects. Generally, the income effect of removing tariffs on a commodity produced by domestic farmers is negative for producers who might be predominantly rural poor. The opposite is true for net consumers.

The dependence of households on imported calories may be a function of the rural and urban sectoral differences, influencing the distribution of welfare effects of trade policy. Understandably, millions of urban poor benefit from a decline in food prices. Thus, the pro-poor trade policies are determined at the sectoral level, although the overall impact of trade openness on national income is positive theoretically. Moreover, the net effect may mask significant heterogeneities across income groups, demanding complementary policies to mitigate the negative impact on the 'losers' of trade policies.

The adverse welfare impact of trade mainly comes through changes in factor prices like wages and labour market outcomes like unemployment.[8] However, the pro-poor nature of trade is evident when the expenditure side is factored in, as trade liberalisation tends to lower the price of consumer goods. The pro-poor trade bias is persistent across all countries, with gains from opening to trade being 63% for the 10th percentile of the income distribution and 28% for the 90th percentile.[9]

The role of trade in realising high-income and pro-poor growth is more important in a world where climate change affects aggregate output and household income. Climate change may affect

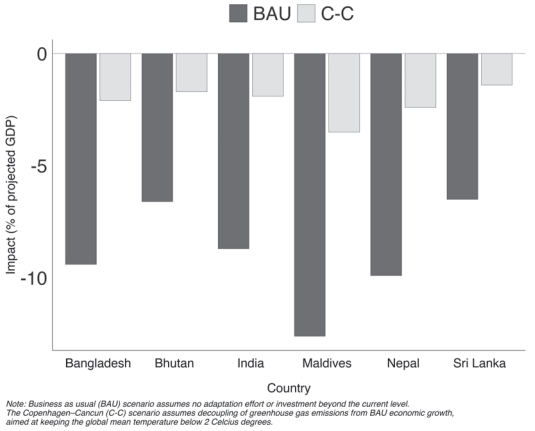
[8] David, H., Dorn, D., & Hanson, G. H. (2013). The China Syndrome: Local Labour Market Effects of Import Competition in the United States. *American Economic Review, 103*(6), 2121-68.

[9] Fajgelbaum, P. D., & Khandelwal, A. K. (2016). Measuring the Unequal Gains from Trade. *The Quarterly Journal of Economics, 131*(3), 1113-1180.

household welfare and countries in three ways. First, climate change – increased temperature, Carbon dioxide (CO_2) concentration, and rainfall fluctuations – may reduce the yield and variability of the yield in food crops. Such productivity losses will lessen the available surplus for domestic and international trade, while subsistence producers who produce little to no excess will experience lowered consumption levels. The increased food prices due to shortages will erode the purchasing power of the urban population.

Second, climate change may shrink the yield of export crops – such as tea in the Sri Lankan context – affecting export revenues. The declining export revenue scenario negatively affects households dependent on the agricultural export sector for their livelihoods. Decreasing revenues will also impact the ability to import food nationally. Third, if not mitigated and adaptation weakens, climate change will lower aggregate output, directly reducing household welfare (Figure 10.3).

Figure 10.3
Climate Change Impact on South Asian Economies by 2100 as a % of Projected GDP



Note: Business as usual (BAU) scenario assumes no adaptation effort or investment beyond the current level. The Copenhagen–Cancun (C-C) scenario assumes decoupling of greenhouse gas emissions from BAU economic growth, aimed at keeping the global mean temperature below 2 Celcius degrees.

Source: Authors' illustration using data from Ahmed, M., & Suphachalasai, S. (2014). *Assessing the Costs of Climate Change and Adaptation in South Asia.* Manila: Asian Development Bank.

Impact of Climate Change on GDP

Weather changes projected under the carbon-intensive scenario will reduce total GDP.

Country	Loss of GDP by 2050 (USD billions)	
	Severe Hotspots	Entire Country
Bangladesh	58.7	171.1
India	403.9	1,177.8
Sri Lanka	12.2	49.9

Source: The World Bank, (2018).



Approximately **19 million** people in Sri Lanka today live in locations that could become **moderate or severe hotspots by 2050.** This is equivalent to **more than 90% of the country's population.**

10.2.2 Role of Trade in Mitigating Climate Change Impacts

The predicted adverse impacts of climate change on crop production like maize, wheat, and rice are uneven spatially (Table 10.2). It implies that climate change alters the comparative advantage patterns. The role of trade in mitigating the adverse impacts of climate change is well known, although the relative importance of trade is subject to debate.[10] Notably, countries will be able to specialise in a product mix with comparative advantage as the surplus can be readily exported to deficient regions in an integrated world. Trade thus acts as an effective channel to secure vital food supplies from the surplus areas to the deficient regions. For sustained positive outcomes, policymakers should facilitate the smooth transition of workers to the sectors with the newly achieved comparative advantage due to climate change-induced productivity changes.

Whatever the existing potential for trade to mitigate climate change-induced food shortages, trade policy will determine the degree to which that potential is realised. Generally, when food production is low, key food producers restrict exports, exacerbating the net importers' food shortages. For example, in the post-coronavirus (COVID-19) world, many countries imposed export controls on major food exports due to a looming food crisis. Thus, multilateral institutions like the WTO need to be involved in minimising barriers to food trade in a crisis.

Moreover, trade can provide export opportunities to poor rural producers and speed up the recovery from extreme weather events. Although modern GVCs transmit localised shocks to broader areas, improved integration intensifies the rapidity of recovery from such shocks. Once local production is disrupted and demand is reduced, well-connected firms can look for alternative suppliers of inputs and buyers. In addition, as noted above, trade openness increases the sophistication of the production structure or the economic complexity. A complex production system which indicates a high level of accumulated knowledge and technical sophistry of an economy fosters greener products, environmental-friendly technologies, and reduced emissions.

Whatever the existing potential for trade to mitigate climate change-induced food shortages, trade policy will determine the degree to which that potential is realised.

[10] Costinot, A., Donaldson, D., & Smith, C. (2016). Evolving Comparative Advantage and the Impact of Climate Change in Agricultural Markets: Evidence from 1.7 million Fields Around the World. *Journal of Political Economy, 124*(1), 205-248.

Table 10.2
Impact of Climate Change on Crop Yields by Region

Region	Maize	Rice	Wheat	All crops
Asia	15.3	3.9	-53.5	-8.9
Europe	-15.1	51.5	-8.2	-11.1
Latin America	3.3	-36.9	-35.3	-35.4
Middle East and North Africa	115.5	-87.2	-25.9	-23
North America	-15.7	9.1	-5.1	-16.2
Sub-Saharan Africa	0.0	-15.3	-76.3	-38.7

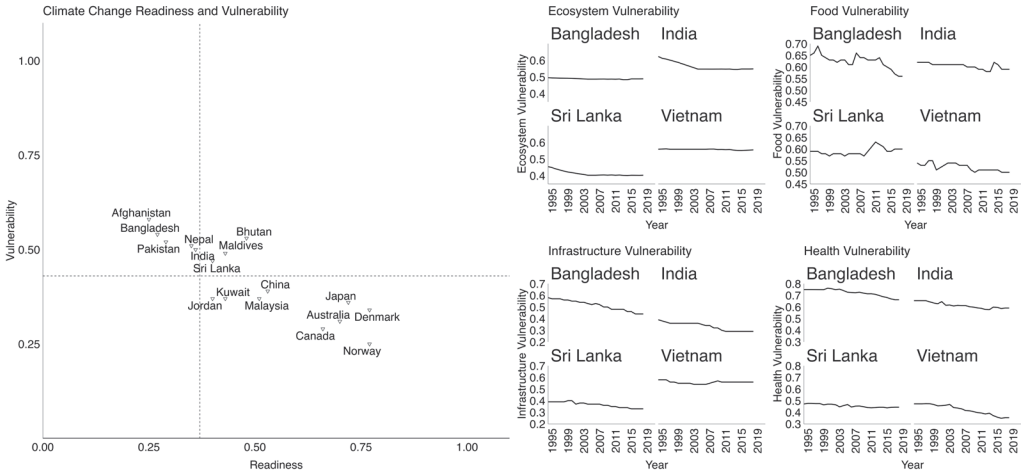
Source: Extracted from Brenton and Chemutai, (2021).[11]

10.3 Trade Policy and SDGs in Sri Lanka Under Climate Change

The Notre Dame Global Adaptation Initiative (ND-GAIN) ranks Sri Lanka as the 60th most vulnerable country to climate change and the 94th least ready country. However, due to the relative high vulnerability (0.470) score and high readiness score (0.398), Sri Lanka is ranked 104 on the ND-GAIN index with a score of 46.4 (higher the better). In the ND-GAIN matrix, Sri Lanka is in the upper-right quadrant (Figure 10.4). Regional peers like Bangladesh, Pakistan, Nepal, and India have higher vulnerability and lower readiness.

Sri Lanka's ecosystem, infrastructure, and health vulnerabilities are declining over time,

Figure 10.4
Sri Lanka's Vulnerability and Readiness to Climate Change- ND-GAIN Index



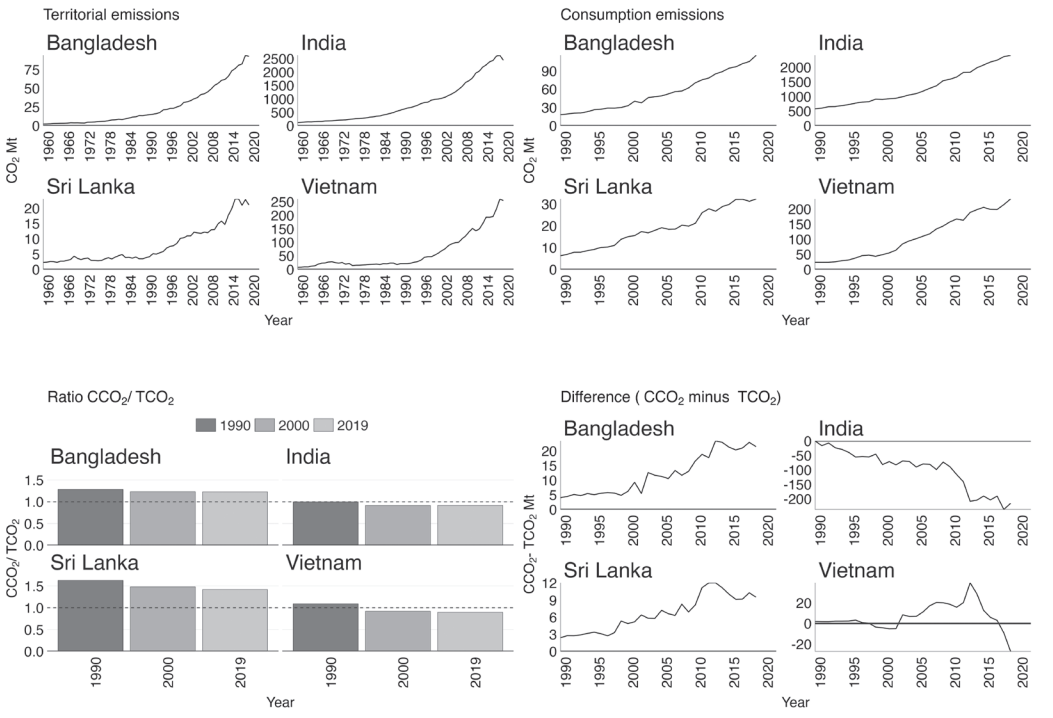
Source: Authors' illustration using ND-GAIN data.

[11] Brenton, P., & Chemutai, V. (2021). *The Trade and Climate Change Nexus: The Urgency and Opportunities for Developing Countries. Washington,* D.C.: World Bank.

following similar trends as its peers. However, the decline is much steeper in other countries like Bangladesh, India, and Vietnam. Notably, Sri Lanka's food vulnerability is rising over time (Figure 10.4). Against this backdrop, Sri Lanka should act quickly to reduce its climate change vulnerability. According to the ND-GAIN, "Sri Lanka is on the road to responding effectively to climate change, but the adaptation needs and urgency to act are greater."

Figure 10.5 shows the emission profile of Sri Lanka. Mainly, two measures are used to account for the CO_2 emissions of countries. The first is traditional territorial production-based accounting (TCO_2) so that all emissions are physically released within a country's borders and count toward the respective country's inventory. However, international trade moves 'virtual emissions' embedded in traded products. Thus, emissions generated in the production of exported goods (both final and intermediate goods) will be consumed by the importing country, prompting a consumption-based accounting of emissions. The consumption-based emission accounting (CCO_2) includes estimated emissions released during the production of imported goods consumed within the territory. If a country's ratio between CCO_2 and TCO_2 (CCO_2/TCO_2) is higher than one, then that country is a net CO_2 emission importer.

Figure 10.5
Sri Lanka's Emission Profile



Source: Authors' illustrations using Global Carbon Atlas data.

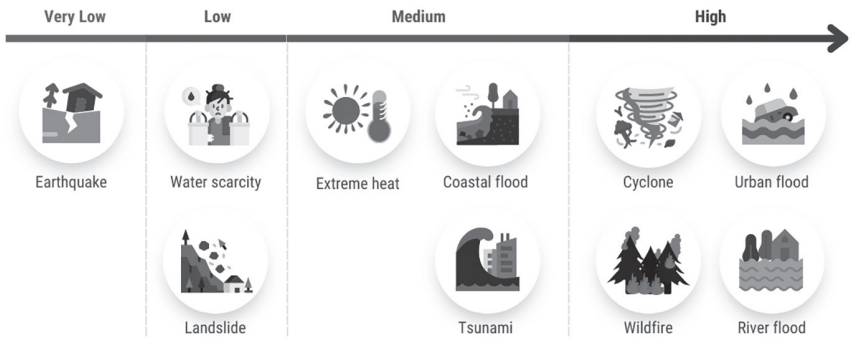
The country is a net emission exporter if the ratio is less than one. Similarly, if the difference between CCO_2 and TCO_2 (CCO_2 minus TCO_2) is negative, the country is a net emission exporter and vice versa.

Over time, Sri Lanka is moving towards becoming an emission exporter. If it develops a strong export sector, becoming an emission exporter will be accelerated.

Substantial production capacities, comparative advantages in production, and trade openness make countries like India and Vietnam net emission exporters (Figure 10.5). Sri Lanka is an emission importer as consumption-based CO_2 is higher than the territorial production-based CO_2 emission (Figure 10.5). Notably, TCO_2 quantity has risen steeply after the 1990s in Sri Lanka. The declining ratio of CCO_2/TCO_2 over time implies that Sri Lanka is moving towards becoming an emission exporter. If Sri Lanka can develop a strong export sector, becoming an emission exporter will be accelerated. Hence, while striving to increase exports, Sri Lanka should gradually transform into a low-carbon economy with innovation and the adoption of advanced technology.

As climate models predict, the average temperature rise in Sri Lanka would be lower than the rise in global temperatures. The projected increase is approximately 3.2°C by the 2090s under emissions pathway Representative Concentration Pathways (RCP)8.5 – the high emission scenario or business as usual, is where efforts to minimise emissions are the lowest – compared to the projected global rise of

Disaster Risk Levels for Sri Lanka



Source: World Bank Group, (2018).

3.7°C.[12] Climate change will likely push ambient temperatures over 30°C regularly while increasing the frequency of temperatures over 35°C. In addition, Sri Lanka will face extreme weather events. The disaster risk level of Sri Lanka is moderate, ranked 97th out of 191 countries in 2019. Sri Lanka has moderate exposure to riverine and flash flooding, some exposure to tropical cyclones, and a slightly lower risk of droughts (see infographic). Inevitably, these climate change-induced conditions will affect the country's agricultural productivity.

Table 10.3
Climate Change Impact on Agricultural Crops, Fisheries and Livestock

Crops/ Fisheries/ Livestock	Climatic Change	Consequences	Impact on Yield
Food Crops			
Rice	The rise in temperature, atmospheric CO_2, rainfall distribution variation, flood, saline water intrusion	Sterile pollen grains, variation in farming operations, wash away fertilisers, agrochemicals, rise in salinity level.	Two °C increase reduces yield by 12%, at RCP8.5, 20% grain yield reduction.
Fruits and vegetables	Droughts, floods, rise in temperature	Higher evapotranspiration rates, soil moisture deficits, the temporal evolution of soil salinity	Yield reduction by affecting different growth stages
Maize	Rise in temperature during the growing season	Shortened length of the growing cycle, reduced CO_2 assimilation and capture of radiation.	Decrease in total biomass and grain yield
Green gram	Rise in temperature	Reduce leaf area index and biomass production	Beyond 25–30°C reduce yield
Potato	Decrease night-day thermal amplitude	Assimilation and tuber bulking narrow down	Yield reduction
Chilli	1. Rise in air temperature during the growing season	1. Increase pod yield	One °C rise increases yield by 0.52 Mg ha−1 and 49.43 Kg ha−1 (Fresh and dry, respectively)
	2. Diurnal temperature difference	2. Decrease fresh and dry yield	
Tomato		1. Decrease fruit yield, prolonged period to attain 50% flowering and final harvest, 2. Increase dry and fresh yield	One °C rise decreases yield by 2.83 Mg Ha−1 and 91.14 Kg Ha−1 (Fresh and dry, respectively)
Big onion	Heat and high insolation associated with high temperature	Day length > 12 hours and cumulative rainfall =< 750 mm throughout cropping to reach max. yield	Yield reduction (Long day crop)

[12] World Bank Group (WBG), & Asian Development Bank (ADB). (2021). *Climate Risk Country Profile: Sri Lanka.* Colombo: World Bank.

Crops/ Fisheries/ Livestock	Climatic Change	Consequences	Impact on Yield
Sugar cane	The rise in atmospheric CO_2, air temperature, floods, droughts	Sucrose accumulation in three varieties out of eight	Biomass production is not affected by CO2 or air temperature or its combination
Export Crops			
Tea	The rise in temperature, rainfall, floods, droughts, soil erosion and landslides	Decreased moisture level in soil, water shortage, and increased level of disease occurrence	The land area of 13.15% is highly vulnerable due to poor yield and lower tea production
Rubber	Rainfall, floods, droughts, landslides, heavy surface run-off	Increase no. of days available for rubber tapping, loss of plant nutrients, rise in evapotranspiration	Deplete soil moisture reserves and reduce yield
Coconut	Floods, droughts, landslides	Variations in farming operations	Yield reduction
Fisheries	Sea level rise, storm surges, floods, prolonged drought, rise in temperature	Loss of coastal habitats and species distribution, adverse changes in water quality parameters, rise in evaporation	Impact on inland aquaculture, capture fishery and fish stocks, lowered yield in seasonal tanks
Livestock	Floods, sea level rise, landslides, rise in temperature, prolonged drought	Increased heat stress for livestock	Adversely affect livestock production in areas that are naturally prone to these disasters

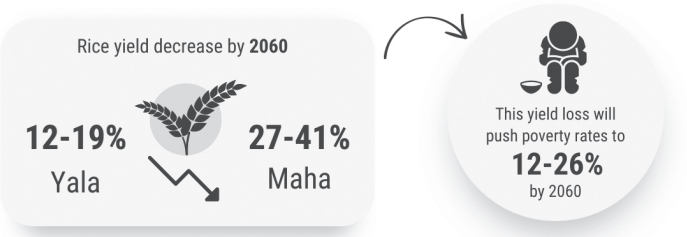
Source: Compiled from Amarasingha, R., Marambe, B., Suriyagoda, L., Punyawardena, R., Herath, H., Jayawardena, S., & Jayakody, P. (2021). *Climate Change Impacts on Crops in Sri Lanka.* Colombo: Food & Agriculture Organization.; Ministry of Environment, Sri Lanka. (2011, January). *Climatic Change Vulnerability Data Book.* Battaramulla.; Ministry of Environment; Karunaratne, G. M. M. R. B., Nissanka, S. P., Punyawardena, B. V. R., & Gunawardena, A. R. (2015). Vulnerability of Tea Sector for Climate Change in the Major Tea Growing Regions in Central Hills of Sri Lanka. *Journal of Environmental Professionals Sri Lanka, 4*(1).

The primary staple, rice will see a favourable impact of increased CO_2 concentration but a negative impact of rising temperature. Temperature anomalies during rice growth have negative consequences for yields, outweighing the benefits of increased CO_2 concentrations. Under the RCP8.5 scenario, rice yields could decline in growing seasons (Yala and Maha) by 12-19% and 27-41%, respectively, by 2060.[13] As rice cultivation is a vital livelihood of the rural Sri Lankan population, yield loss is projected to push poverty rates to 12-26% (see infographic). Table 10.3 shows that the climate change impact on other crops like tea, coconut, and vegetables is negative.

[13] Zubair, L., Nissanka, S. P., Weerakoon, W. M. W., Herath, D. I., Karunaratne, A. S., Prabodha, A. S. M., ... & McDermid, S. (2015). Climate Change Impacts on Rice Farming Systems in Northwestern Sri Lanka. In D. Hillel, & C. Rosenzweig (Eds.), *Handbook of Climate Change and Agroecosystems: The Agricultural Model Intercomparison and Improvement Project (AgMIP) Integrated Crop and Economic Assessments, Part 2* (Vol 3, pp. 315-352). Imperial College Press. doi:10.1142/9781783265640_0022.

Climate Change and Rice Production

Projected rice production under the high-emissions RCP 8.5 global warming scenario



Source: Zubair, L., et al, (2015). Handbook of Climate Change and Agroecosystems: The Agricultural Model Intercomparison and Improvement Project (AgMIP) Integrated Crop and Economic Assessments, Part 2.

10.4 Trade Policy and Food Security under the Impact of Climate Change

The climate change-induced calorie deficiency due to output loss in food crops and productivity loss of export crops would demand well-designed trade policies to minimise the food security risk for Sri Lankans.[14] A drastic drop in export revenue too will hamper Sri Lanka's ability to finance food imports. The uneven impact of trade policy on net consumers and producers demands complementary policy initiatives to support households that experience a reduction of welfare benefits caused by commodity price rises induced by climate change. In addition, the current economic crisis, which demands improved revenue collection by the government, will exert pressure on the use of trade policy to increase tax revenue through import taxes.

The concern is that when the trade position is unfavourable, policymakers are forced to impose import controls protecting domestic import-competing food producers. Significantly, pro-producer bias in trade policies reduces the welfare of urban and food-poor households that consume more imported calories. Thus, protectionist agricultural trade policies have an inherent anti-poor bias on net consumers. These can further reduce the household welfare of net food purchasers in a climate change-induced food crisis. However, eliminating pro-producer trade policy bias is challenging given the critical role of agriculture for a substantial portion of Sri Lanka's labour force and related political-

Eliminating pro-producer trade policy bias is challenging given the critical role of agriculture for a substantial portion of Sri Lanka's labour force and related political-economy reasons.

[14] It is assumed the rise of export crop prices in the world market is not adequate to compensate for the losses.

economy reasons. The added difficulty from low job creation in the industrial sector and increasing labour force participation in the agricultural sector, accompanied by an economic contraction in the current economic crisis, make eliminating pro-producer bias politically more costly.

Box 10.1
Relevance of Trade Policy in Achieving SDGs in a Changing Climate in Sri Lanka

Climate change will hamper domestic food production and adversely affect agricultural exports in Sri Lanka. If not compensated by the economic activities of other sectors, the output loss for the economy can be substantial. In addition, pro-producer trade policy bias might exacerbate net food purchasers' food insecurity. It is vital to find solutions in advance to mitigate these adverse impacts.

Problem 1: Loss of productivity in food and export crops and reduced economic output (GDP).

Outcomes: a) Food crisis b) Reduced export revenue c) Delayed achievement of SDGs.

Solutions: a) Increase the productivity and resilience of domestic food and export crops to projected climate scenarios in future. Allocating funds for research and development to produce weather-resistant varieties with high yields should be done. b) Identify the impact of climate change on Sri Lanka's comparative advantage patterns and gradually switch to agricultural commodities with high comparative advantage. Eliminating incentives for carbon-intensive sectors as environmental regulations at the export destinations will be a barrier to such exports c) Switch to a low-carbon economy based on innovations. d) Constitutionally mandated emergency food fund that can be swiftly used to import food when domestic production is disrupted e) Eliminate tariffs on agricultural inputs and technologies.

Problem 2: Import substitution and pro-producer trade policies in an economic crisis (induced by extreme weather events).

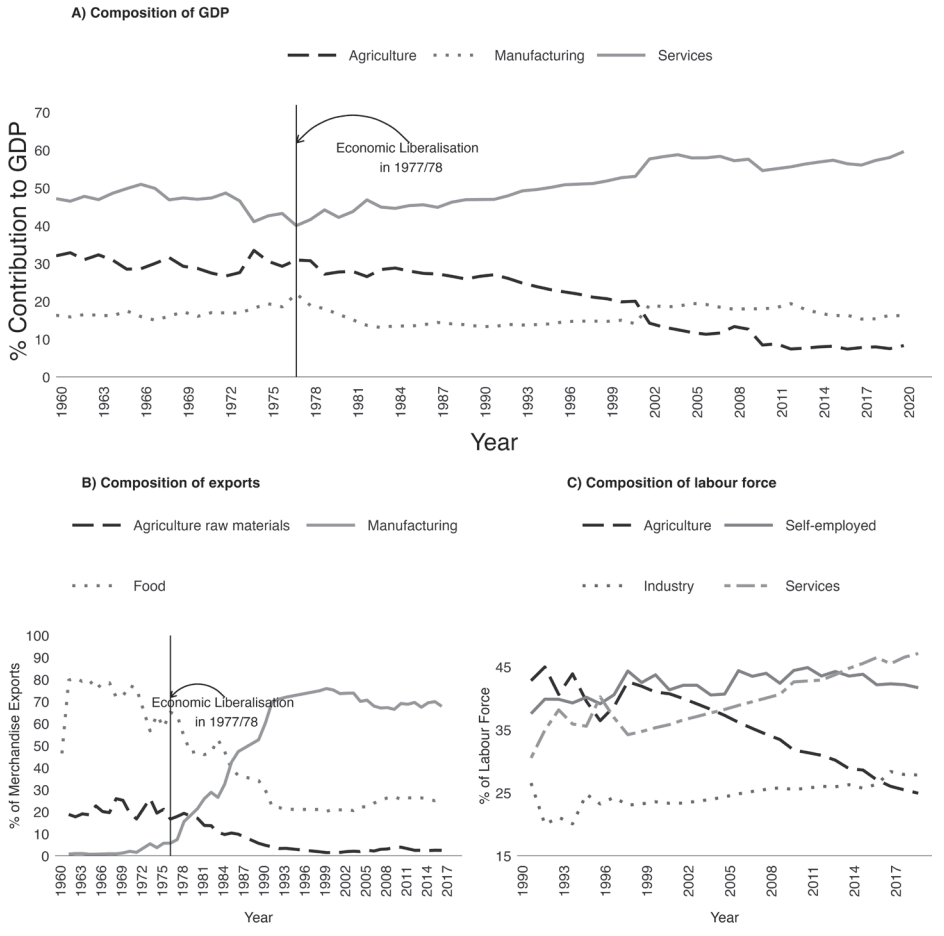
Outcomes: a) Inability to use trade to alleviate domestic calorie deficiency, b) Resource misallocation, c) Slowed-down recovery, d) Burden on food-poor and urban households.

Solutions: a) Generally, foreign exchange crises have historically prompted import substitution policy responses from Sri Lankan policymakers. Developing a resilient export sector by gradually increasing the country's economic complexity will be a sustainable solution to possible foreign exchange crises. In this direction, integration into GVCs should be done. Exports in electric equipment should be increased utilising international opportunities like 'friendshoring' by the European Union (EU) and the United States (US). b) Instead of protecting producers at the expense of consumers, use trade adjustment measures to facilitate a smooth transition of unproductive producers to other employments and c) Streamline social safety nets to cover urban poor and food-poor households.

Source: Authors' compilation.

In 2021, the agriculture sector's contribution to Sri Lanka's GDP was just 6.9%. After economic liberalisation in 1977, the economy transformed into a service-based economy, diminishing the prominence of agriculture (Figure 10.6a). A drastic change in the composition of the export basket took place after 1977 that saw a dip in the contribution of food and agricultural raw materials and a rise in the contribution of manufacturing exports (Figure 10.6b). Despite the agricultural sector's diminished contribution to both economic output and exports, around a quarter of the labour force is employed in the agriculture sector (Figure 10.6c). Thus, commodity price and factor price changes stemming from trade policy measures or climate change directly impact households depending on the agriculture sector, which possesses a relatively disproportionate significance in electoral politics. The consequence might be a policymakers' preference for maintaining protectionist trade policies for agricultural commodities.

Figure 10.6
Agriculture Sector in Sri Lanka's Economy: Historical Evolution



Source: Authors' illustration using World Development Indicators data.

The most recent trade policy changes in Sri Lanka show pro-producer trade policies that reduce net food purchasers' purchasing power even in a crisis.

Indeed, the most recent trade policy changes in Sri Lanka show pro-producer trade policies that reduce net food purchasers' purchasing power even in a crisis. In response to the COVID-19-induced economic crisis, Sri Lanka imposed import controls across intermediate, consumption, and capital imports (Figures 10.7a and 10.7b). However, food products were disproportionately targeted (Figures 10.7a and 10.8).

More than one factor might influence a policymaker's preference in targeting food commodities for import controls. For example, various indications signalled that import substitution was considered a government policy strategy in Sri Lanka.[15] In addition, it is relatively easy to substitute food commodities compared to complex products – such as machinery, electric equipment, and raw materials for industries – as substituting complex products is more challenging. Moreover, the lack of sophisticated technology restricts Sri Lanka's ability to replace them. Consequently, it can be expected that the probability of a complex product being subjected to import control is relatively low. In contrast, the likelihood of a food commodity being subjected to import control is higher. The empirical analysis provides evidence for this interesting pattern (Figure 10.9).

Non-price import controls act as a tariff and increase the price of domestic substitutes, favourably affecting net food producers in import-competing sectors. However, these negatively affect the households' purchasing power. The latter are not net producers but consumers of the imported calories. According to Household

Trade Policy Bias

Almost **88.62%** of food imports are under import control measures.

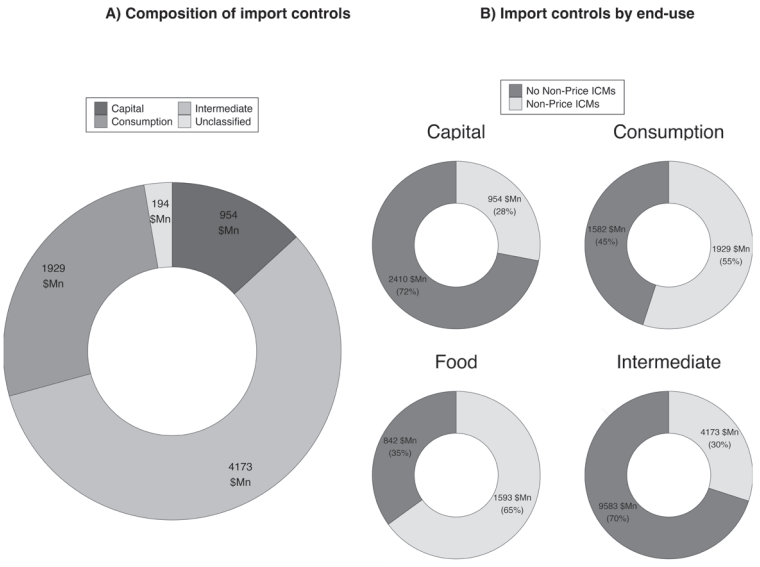
Import control measures	Import control measures on food products	
	Value (USD million)	**% Share***
Non-price import control	1,593.478	65.43
Price control	565.040	23.19
Both non-price and price import control	2,158.518	88.62
Total food imports 2,435.571		

*% Share is of total food imports

Source: Computed using data from various Gazette notifications.

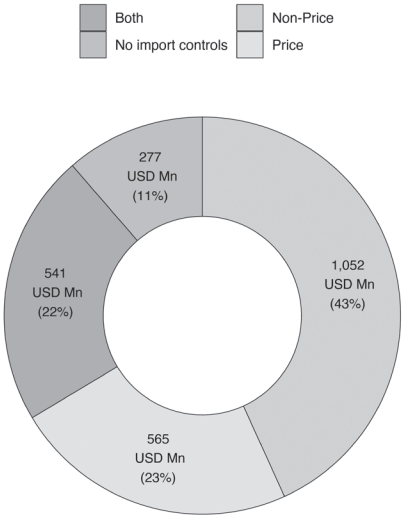
[15] Import substitution was identified as a way to reduce foreign exchange leakages by two Central Bank of Sri Lanka (CBSL) governors in CBSL roadmaps and by the Minister of Finance in the 2021 budget speech.

Figure 10.7
Coverage and Composition of Non-price Import Control Measures (ICMs) Introduced after April 2021



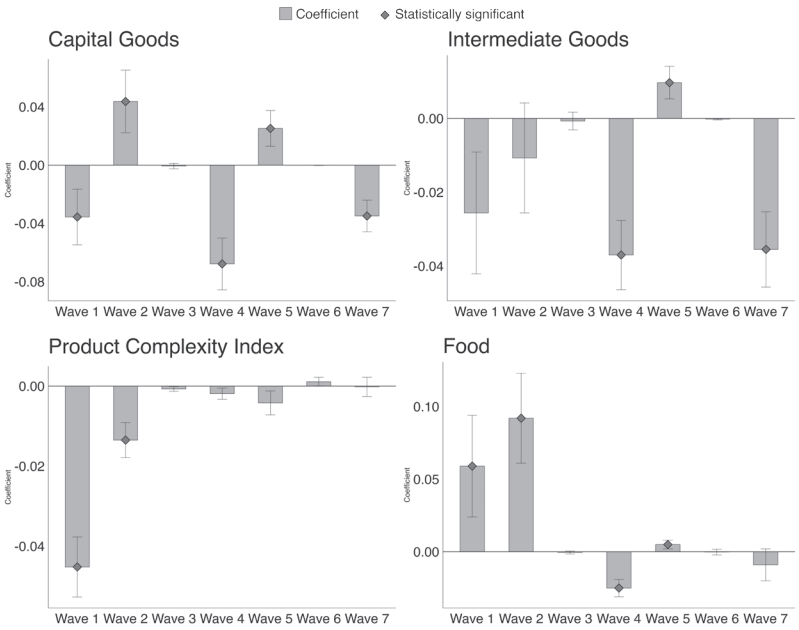
Source: Authors' illustration using data compiled from various Gazette notifications.

Figure 10.8
Coverage of Import Controls Imposed on Food Imports After April 2021 in Sri Lanka (Values are Based on 2017 Imports)



Source: Authors' illustration using data compiled from various Gazette notifications.

Figure 10.9
Coefficients of the Probability of a Product (HS-6 digits) be Subjected to Import Controls (Non-price)



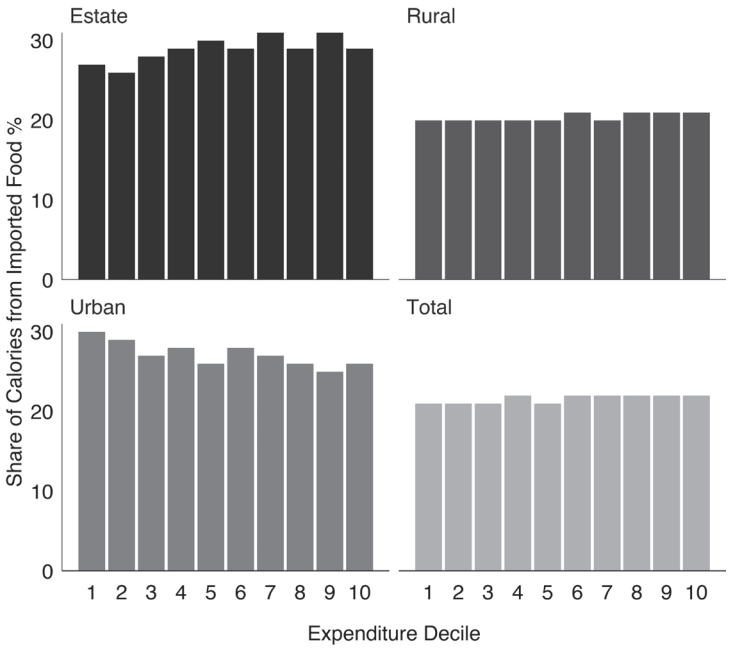
Source: Authors' illustration using models estimated by the authors.

Income and Expenditure Survey (HIES) 2016 data, import dependency for calories is the highest among urban households (Figure 10.10). In addition, import dependency for calories from cereal sources was the highest in the estate sector at 20.7%, against 6.5% in the rural sector. Thus, import controls on food and subsequent price hikes may disproportionately affect the urban and estate sector households.

It should be noted that the poverty headcount ratio is the highest in the estate sector (33.8%). Importantly, empirical evidence shows that food-poor and urban households remain cost-efficient in caloric consumption by incorporating more imported calories into their diets (Box 10.2). Thus, trade policy directly impacts achieving SDGs, particularly achieving zero hunger by ensuring access to food by all people, including the poor and people in vulnerable situations (Box 10.3).

Empirical evidence shows that food-poor and urban households remain cost-efficient in caloric consumption by incorporating more imported calories into their diets.

Figure 10.10
Import Dependency Ratio of Household Caloric Consumption



Source: Wijesinghe, A., & Kaushalya, T. (2021, November). Caloric Consumption Efficiency and Import Dependency: Evidence from Sri Lanka. In *Conference on "Rural Economic Transformation: Pathways To*.

Box 10.2
Import Dependency for Calories and Caloric Consumption Efficiency: Evidence from Sri Lanka

a) Import Dependency Ratio (IDR)

A representative household may consume calories from domestic and imported sources. For example, a typical Sri Lankan household may consume rice mainly produced in Sri Lanka and lentils, which are imported. The import dependency for calories can be calculated as a ratio using the equation given below:

IDR= (Imports/(Production+Imports-Exports))*100

An initial look at the caloric consumption patterns illustrates significant differences in import dependence for calories by income, poverty status, and sector. Table A shows that overall urban poor and food poor have high import dependency ratio than the non-poor and food non-poor.

Table A: Import Dependency Ratio of Total Caloric Consumption by Location and Food Poverty Status

Poverty Status	Statistic	Sector			
		Urban	Rural	Estate	Total
Food non-poor	Mean	25.69	20.50	28.64	21.79
	Count	2,712	12,581	735	16,028
Food poor	Mean	29.57	20.30	26.57	21.92
	Count	608	3,600	180	4,388
Total	Mean	26.41	20.46	28.24	21.82
	Count	3,320	16,181	915	20,416

Source: Wijesinghe, A., & Kaushalya, T. (2021, November). Caloric Consumption Efficiency and Import Dependency: Evidence from Sri Lanka. In Conference on "Rural Economic Transformation: Pathways To Inclusive and Sustainable Prosperity in Post-COVID-19 Asia".

b) Import Dependency and Caloric Consumption Cost-Efficiency

Food has caloric and recreational utilities. If recreational utility dominates caloric utility, the outcome might be reduced caloric consumption cost efficiency. In other words, households can purchase more calories, minimising food consumption with recreational utility. In some instances, imported calories may have higher caloric utility. For example, a household may consume imported palm oil instead of expensive domestic coconut oil. Using the stochastic frontier approach cost inefficiency of families in caloric consumption can be estimated.

Moreover, in a second stage regression, the determinants of inefficiency can be calculated. If the coefficient sign is negative, it implies that the variable positively impacts caloric consumption cost efficiency or hurts inefficiency. As shown in Table B, the food poor and urban households which consume more imported calories are cost-efficient in Sri Lanka.

Table B: Determinants of the Mean of the Cost Inefficiency Distribution

Variable	All Food Caloric Consumption	Cereals and Pulses-Based Caloric Consumption
Poor*IDR	0.030**	-0.006
	-0.014	-0.009
Food poor*IDR	-0.049***	-0.037*
	-0.014	-0.019
Urban*IDR	-0.008	-0.012**
	-0.005	-0.006

Source: Wijesinghe, A., & Kaushalya, T. (2021, November). Caloric Consumption Efficiency and Import Dependency: Evidence from Sri Lanka. In Conference on "Rural Economic Transformation: Pathways To Inclusive and Sustainable Prosperity in Post-COVID-19 Asia".

In a nutshell, the adverse impact of climate change on domestic food production will create food shortages, while low productivity in the agricultural export sector will exacerbate food shortages. As the output loss is substantial in an unmitigated climate change scenario, Sri Lanka's ability to import food will be under pressure. Historical evidence, including the COVID-19 period, shows that such pressure on trade positions motivates protectionist trade policies, primarily targeting food import substitution. However, such policies are economically inefficient, distributionally unfair to urban and food-poor households, and impede mitigation of the adverse impacts. Thus, Sri Lanka should strengthen its economic resilience to climate change impacts by increasing agricultural productivity, adopting weather-resistant crop varieties and productivity-increasing technologies, and transforming into an export economy with high economic complexity.

Box 10.3
Trade Policy Reforms in an Economic Crisis

Sri Lanka's trade policy – tariff structure/non-tariff restrictions and trade agreements – causes lower GVC participation. The protectionist tariff structure/non-tariff restrictions need to be changed to disincentivise further resource allocation to the agriculture sector and increase the industrial sector's competitiveness. Likewise, quality trade agreements with substantial coverage and minimum regulatory barriers will increase GVC participation, attracting investments to the industrial sector. Both of these measures can increase the trade openness of the country.

Tariff Reforms and Elimination of Non-tariff Restrictions

Challenge: Exacerbated revenue concerns in the economic crisis, shortage of foreign exchange, economic downturn, low job creation in the industrial sector, and increased labour force employment in the agricultural sector may reduce policy commitment for trade reforms.

Policy Options: a) Increasing revenue from direct taxes, including income taxes which will reduce pressure to keep high import tariffs, b) Rationalising government expenditure by halting further recruitments and reforming state-owned enterprises (SOEs) to reduce the need for further increasing tariffs to compensate for these expenses, c) Prioritising scarce foreign exchange to import raw materials and essential food, cutting down non-industrial fuel consumption. It should be noted that Sri Lanka's trade deficit is contributed mainly by refined petroleum imports in the first half of 2022. These measures will remove the production bottlenecks in the industrial sector while reducing food prices and disincentivising labour force movement to the agricultural industry.

The above measures create a conducive economic environment for tariff reforms, increasing the country's openness.

Trade Agreements

Challenge: The low coverage and regulatory measures of the existing trade agreements, lack of trade complementarity with proximate trade partners, and weakness in identifying suitable trade

partners for trade agreements weaken Sri Lanka's ability to effectively use trade agreements to increase integration into the global market. In addition, domestic lobbying and the electoral significance of the agriculture sector reduce Sri Lanka's ability to commit more to grant preferential access to trade partners.

Policy Options: It should be noted that political-economic factors that impede effective trade agreements cannot be removed easily. Sri Lanka needs to identify partner countries willing to provide preferential access for the products that Sri Lanka exports with a comparative advantage. Non-reciprocal trade access like the Generalised System of Preferences Plus (GSP+) provides preferential market access to Sri Lanka's products that are shipped with a comparative advantage. Increasing the utilisation of such available market access should be done. Negotiations for changing regulatory barriers like rules of origin will help improve the utilisation ratio.

Sources: Authors' compilation.

10.5 Policy Implications and Conclusion

The critical role of trade in realising SDGs like alleviating poverty, zero hunger, and mitigating climate change highlights the need for prudent trade policies for countries like Sri Lanka. Climate change will affect agricultural producers and consumers. Still, trade between countries in an integrated world has the potential to mitigate food insecurity, support adaptation, and enable recovery from extreme weather events. Globally, households among non-agricultural producers might see 45% higher malnutrition in a less integrated global economy than less than a 30% rise in a more integrated global economy.[16] The impact is much less in an integrated world as the most affected regions can import food from less-affected areas.

In a scenario where climate change reduces export revenues and domestic food production, it is more likely that policymakers' attention will once again shift to import substitution of food.

For Sri Lanka, too, international trade and national trade policies – import/export restrictions, tariffs,

[16] Hertel, T. W., & Baldos, U. L. C. (2016). *Global Change and the Challenges of Sustainably Feeding a Growing Planet.* New York: Springer.

High agricultural productivity will release surplus labour to other sectors, facilitating a structural transformation. Shrinkage in the agricultural sector labour force participation will also ease the financial burden in compensating for livelihood disruptions due to climate change events.

market access and non-tariff barriers – play a vital role. Indeed, the trade policy measures of the COVID-19 period teach essential lessons in shaping future policy responses to achieve sustained growth and positive development outcomes in the face of a crisis. It is evident that whenever the Sri Lankan economy cannot finance imports, policymakers attempt to embark on import substitution policies curtailing the ability of trade to compensate for domestic food shortages. Empirical analyses show that import substitution policies first target less sophisticated products like food. However, imported calories are essential for food-poor and urban households to be cost-efficient in caloric consumption.

Thus, in a scenario where climate change reduces export revenues and domestic food production, it is more likely that policymakers' attention will once again shift to import substitution of food. However, as the reduced productivity due to harsh climate conditions implies that the country no longer has a relative productivity advantage in producing crops, any attempt to divert resources to crop production will generate economic inefficiency. Import substitution also increases food prices, reducing urban and food-poor caloric consumption. Hence, it is critical to understand that import substitution is not a viable solution in a climate crisis.

It does not imply that Sri Lanka should altogether ignore the agriculture sector – a scenario where economic and social costs would be substantial – and rely on food imports. Surplus producers will exploit export restrictions when a food crisis is intense. Thus, Sri Lanka should increase the productivity of staple food crops like rice and vital agricultural exports like spices, tea, rubber and coconut. Additional focus should be diverted to producing extreme weather-resistant varieties to minimise future yield losses.

High agricultural productivity will also release surplus labour to other sectors, facilitating a structural transformation. Shrinkage in the agricultural sector labour force participation will also ease the financial burden in compensating for livelihood disruptions due to climate change events. As the agriculture sector is more vulnerable to climate change, the labour force's reduced reliance on agriculture will lower the number of impacted households. Moreover, a diminished electoral significance will inevitably minimise the pressure on policymakers to adopt pro-producer trade policies at the expense of urban and food-poor net food purchasers.

The current economic crisis in Sri Lanka makes it crucial that policy changes are adopted to facilitate a strong and sustained recovery. As discussed, an export-led growth strategy requires trade openness which helps a country to capitalise on comparative advantage by participating in GVCs. In addition, Sri Lanka needs to integrate into the global market to realise the full potential of trade in mitigating climate change impacts. For increased trade openness, Sri Lanka needs to reduce the existing protectionist tariffs in the agricultural sector, in particular, and remove existing quantitative restrictions. However, the need to improve government revenue to achieve debt sustainability – a precondition for assistance from multilateral organisations –can compel policymakers to retain high tariffs. A second-best option is to phase out existing high tariffs. First, Sri Lanka can keep high tariffs on luxury and non-essential products while reducing tariffs and removing the quantitative restrictions on food and raw materials. Once quantitative restrictions are removed when the foreign exchange crisis eases, revenue from imported items like vehicles, bathroom and sanitary ware items, and electronic equipment may rise. However, ambitious tariff reforms in the agricultural sector might be a daunting task for policymakers given the country's post-pandemic economic, political and social conditions.

The predicted economic downturn in 2022 and 2023 will reduce job creation in the industrial sector. As labour force data show, a trend of increasing labour force participation is evident in the agriculture sector in the COVID era. This trend may continue in the future. As across-the-board trade policy reforms include liberalisation of the agricultural trade, where the associated welfare losses are significant for agricultural producers, such trade policies would be hard to implement. Thus, the first policy priority should be to discourage labour force movement to less productive agricultural activities. In addition to the slowdown in industrial sector employment, it is possible that high domestic food prices also cause labour force movement to the agriculture sector.

A policy push for increased domestic food production will further motivate such labour force movements. Assuming that the dire foreign exchange crisis will ease by the beginning of 2023, importing food items like pulses under low tariffs is necessary to bring down high food prices. Instead of an economically costly domestic food production drive which demands more resources for the agriculture sector, Sri Lanka should guarantee uninterrupted fertiliser and agrochemical supplies to existing producers to realise their yield potential. However, it should be noted that even without more additions, the agriculture sector still employs about 25% of the labour force. Thus, facilitating a structural transformation is imperative to make trade policy reforms politically feasible.

Facilitating unproductive agricultural producers to move out of the sector needs land policy changes,

trade adjustment packages to minimise the economic shock of trade reforms and investment in training agricultural workers and producers to acquire the necessary technical skills to be employed in the industrial sector is vital. Trade adjustment packages include compensations for the affected producers and workers, which can avoid a drastic welfare loss. In addition, targeted social safety nets and market-based instruments like insurance will help to smoothen such a labour transition.

11. Food Security and Zero Hunger during Food Crisis

11.1 Introduction

Sri Lanka's food security as per the Global Hunger Index (GHI) 2021 and Global Food Security Index (GFSI) 2021 suggest that the country needs significant improvements in the food system. The country has been ranked 77th by GFSI 2021 and 65th by GHI 2021 out of 113 and 116 countries,[1] respectively. Sri Lanka has scored 54.1 out of 100 in the GFSI 2021, whereas GHI 2021 classified the country under a 'moderate risk' of hunger. Based on the Food and Agriculture Organization (FAO) statistics, the prevalence of wasting declined only from the base year value of 20.6% in 2000 to 16% in 2020. Similarly, the prevalence of stunting among children under age five declined only from 15.9% in 2000 to 15.1% in 2016. Further, 6.9% of the population was undernourished in 2020. These figures indicate the need for measures to improve food security and nutrition among various socioeconomic groups and regions where severe disparities persist.

Sri Lanka's current economic crisis and the pandemic-induced stress on the economy have been substantial. The associated measures to deal with the fallout included imposing several import restrictions with bans, import control licenses, credit basis requirements and price restrictions.[2] Amidst the restrictive trade policies, domestic rice production was hampered drastically due to an ill-thought push towards organic agriculture which caused the rash ban of chemical fertiliser imports. All these restrictions and policy blunders further exacerbated food shortages, pushing inflation rates to an all-time high and seriously jeopardising Sri Lanka's food security.

Food security is a relatively new concept in the policy dialogue in Sri Lanka because the past focus has mainly been on achieving 'self-sufficiency' in major food commodities.[3] Looking back on today's understanding of the concept of food security, a wide range of policy interventions by successive governments to address supply and demand-side issues relating to various food commodities can be identified as contributing to food security. These include policy measures adopted in multiple sectors such as agriculture, fisheries, livestock, irrigation, land settlement, nutrition and health, as well as macroeconomic policies which have directly or indirectly influenced the availability, access and utilisation of various food commodities. As Sri

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1 International Food Policy Research Institute. (2022). *Global Hunger Index 2021.* Washington, D.C.: The International Food Policy Research Institute.

2 Wijesinghe, A., & Yogarajah, C. (2022). *Sri Lanka's Food Crisis: What is the Role of Imports?* Retrieved May 10, 2022, from Talking Economics: https://www.ips.lk/talkingeconomics/2022/06/29/sri-lankas-food-crisis-what-is-the-role-of-imports/

3 Sandaratne, N., & de Alwis, S. (2014). *National & Household Food Security in Sri Lanka,* Study Series 8. Colombo: Centre for Poverty Studies.

Lanka is dependent on several imported food commodities, trade policies also significantly influence food security in the country. These policies usually involve many stakeholders including individuals, government agencies, private firms and civil society organisations.

National agriculture and food security policies have to play a major role here. A holistic, multi-sector approach that ensures the participation of all relevant stakeholders is required to reach the goal.[4] Policies by successive governments have helped to overcome the then core problems associated with the agriculture sector, viz. heavy dependence on imports, limited domestic production, low productivity, and lack of irrigation facilities to expand the area under cultivation. However, the core problems have since transformed towards stagnating productivity, low farm income, land fragmentation, climate change, sensitive environmental issues, and concerns of economic access by vulnerable sections. Therefore, existing policies and institutional arrangements in the agriculture and food sector in Sri Lanka that still appear to be geared to address policy challenges in the past will not be appropriate given that the nature of problems associated with agriculture has transformed significantly over time. Moreover, global risks and uncertainties, such as the coronavirus (COVID-19) pandemic and the Russia-Ukraine war, pose new challenges and have made achieving food security more and more formidable without revisiting current food security policies and strategies.

This situation has curtailed the government's capacity to effectively deal with the real current problems in the agriculture sector. Looking at the issues from conventional points of view is unlikely to position policymakers to get their actions right. Instead, issues need to be identified from a realistic perspective in the correct order of priority, and these should be approached with innovative policies and strategies. Reorganisation of the institutional setup to cater to new priorities is also an essential prerequisite for achieving the broader goals of food security.

In this context, the Sustainable Development Goals (SDGs), recognising 'zero hunger' as Goal 2 among 17 priority goals, provides an important objective. Whilst it calls for joint global efforts, reaching the goal of zero hunger by 2030 presents a significant challenge for many developing countries, including Sri Lanka. Within this background, this chapter defines the concepts of food security and food crisis, followed by an analysis of Sri Lanka's pre-crisis food security situation, examining in detail some causes and consequences of the current food crisis. The chapter concludes by providing policy recommendations to overcome the current food crisis and pave the way for Sri Lanka to progress towards SDG 2.

11.2 Concept of Food Security and Food Crisis

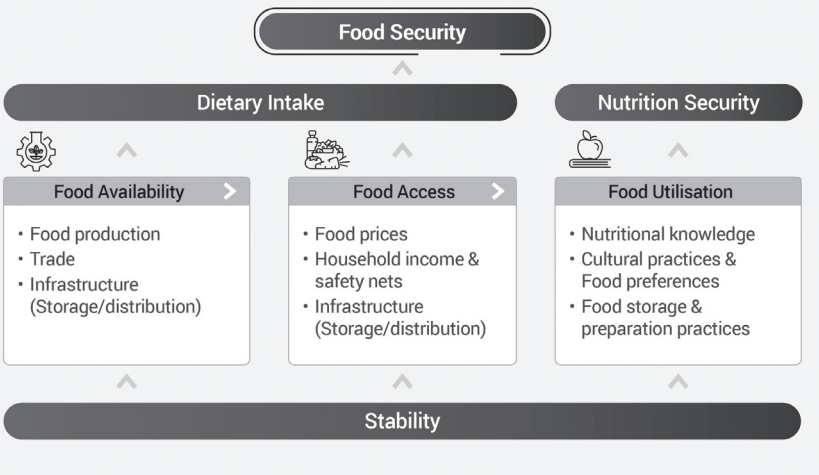
The FAO estimates that about 768 million (Mn) people of the 7.8 billion (Bn) people in the world (or 9.9% of the global population) were suffering from undernourishment in 2020. In Africa, the prevalence of undernourishment has been slightly increasing since 2014, while it is decreasing steadily in the Asian region and

[4] United Nations World Food Programme. (2017). *National Strategic Review of Food Security and Nutrition Towards Zero Hunger.* Colombo: World Food Programme.

reached 7.8% in 2018 before rising to 9% in 2020.[5] Lack of sufficient and nutritious food consistently due to food insecurity is associated with adverse dietary and health outcomes such as hunger and malnutrition in adults and children. According to recent estimates, 11.9% of the world's population (928 Mn people) was at severe levels of food insecurity in 2020. Further, 22% and 6.7% of children under five years have suffered from stunting and wasting, respectively.[6]

Food security, as a concept that originated only in the mid-1970s, is now central to discussions on global food problems at a time of a global food crisis. The initial focus of attention was primarily on food supply problems of assuring the availability and to some degree, the price stability of basic foodstuff at the international and national levels. Over time, the concept of food security has evolved to reflect changes in official policy thinking which reinforce the multi-dimensional nature of food security, which includes food availability, food access, food stability and food utilisation that are important to ensure the food and nutrition security of an individual or a country. The 1996 World Food Summit adopted the definition that "food security, at the individual, household, national, regional and global levels is achieved when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life."[7]

This was further refined as food security exists "when all people at all times have physical, social and economic access to sufficient, safe and nutritious food which meet their dietary needs and food preferences for an active and healthy life," which is widely accepted at present.[8] This definition covers chronic food security due to



Source: Author's illustration based on data from the World Food Programme, (2017).

[5] Food and Agriculture Organization. (2022). *FAOSTAT.* Retrieved May 10, 2022, from FAO: http://www.fao.org/faostat/en/#data/FS

[6] *Ibid.*

[7] Food and Agriculture Organization. (1996). *Rome Declaration on World Food Security and World Food Summit Plan of Action. World Food Summit, November 13–17, 1996.* Rome: Food and Agriculture Organization.

[8] Food and Agriculture Organization. (2001). *Food Insecurity: When People Live with Hunger and Fear Starvation. The State of Food Insecurity in the World 2001.* Rome: Food and Agriculture Organization.

a continuously inadequate diet associated with longer-term issues such as poverty and transitory food security associated with short-term shocks such as drought, floods, pandemics, civil wars, etc. Further, the nutritional dimension is an integral component of the concept of food security under the food utilisation aspect, which implies that the consumed food must have a positive nutritional impact on people. Considering the above, food security is a beneficial concept linked to achieving SDG 2 of zero hunger.

A conceptual framework to illustrate the major contributory factors determining food security in Sri Lanka can be developed (see infographic). As shown, food security is a complex phenomenon with non-linear interrelations and the causes of food security are multifaceted. Dietary intake and nutrition levels of food are often considered the immediate causes of food security. Inadequate nutritional intake could be primarily a result of insufficient food availability and poor access to food by households. In contrast, poor nutrition levels are often the result of unhealthy food utilisation, where all three causes can be affected by instability in the long run.

Food availability is the amount of food physically available in the country and it is determined by local food production, trade, storage and distribution. Food accessibility depends on the individual's capability to purchase food at the household level which is determined economically by food prices, household income and safety nets, and physically by storage infrastructure and food distribution capacity. Food stability ensures access to food at all times and covers the population's physiological, economic, social or political vulnerabilities to food security. Food utilisation ensures proper use of the accessible food by households to absorb correct amounts of nutrients determined by nutritional knowledge, cultural practices, food preferences and habits, food preparation and storage practices. The stability of all the aspects mentioned above will always ensure food security. These four pillars are rooted in the availability of various forms of resources to the household, including human, social, natural, physical and financial resources, which are determined by the macroeconomic situation and polity of the country.

A food crisis occurs when food insecurity persists for an extended period and usually produces widespread food scarcity in a society with above-normal acute malnutrition. It is generally caused by numerous factors such as crop failure, population explosion, government policies, and global recession. During a food crisis, households are marginally able to meet minimum food needs by utilising essential livelihood assets or through crisis-coping strategies. A food crisis could result in an emergency with very high acute malnutrition and excess mortality. The households can mitigate food consumption gaps only by employing emergency livelihood strategies and asset liquidation.[9] For Sri Lanka, the current food crisis is neither an end nor a beginning of an era of high food prices and scarcity because fluctuations in food prices have been recurrent. The last such incidence started with the COVID-19 pandemic in 2020 and the one before was in 2008, yet that too was not the first. Sri Lanka faced food crises in 1972 and the late 1940s. The following section will elaborate more on the food security situation before the ongoing food crisis in Sri Lanka.

[9] FAO/FSNAU (2006). *Integrated Food Security and Humanitarian Phase Classification: Technical Manual Version 1.0.* Nairobi: FAO/FSNAU Technical Series IV.

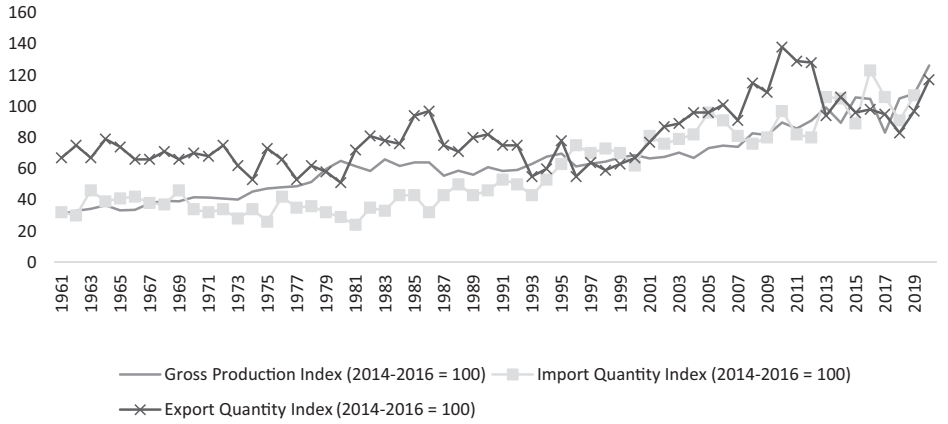
11.3 Sri Lanka's Food Security Before the Crisis

11.3.1 Availability of Food: Local Production and Imports

Food security in Sri Lanka depends on local production and imports of food crops, livestock products and fish. Despite the critical role played by local production in achieving food security, the country still imports food items worth around USD 1,500 Mn annually[10] spending scarce foreign exchange earnings. Despite the share of agriculture in the gross domestic product (GDP) declining over the years, with the faster growth of services and industry sectors, gross agricultural production in the country has shown a significant improvement with an increase from USD 1,850 Mn in 1961 to USD 5,999 Mn in 2020.[11] Figure 11.1

Despite the critical role played by local production in achieving food security, the country still imports food items worth around USD 1,500 Mn annually.

Figure 11.1
Value of Gross Agriculture Production, Imports and Exports in Sri Lanka



Source: Food and Agriculture Organization. (2022). *FAOSTAT.* Retrieved May 10, 2022, from FAO: http://www.fao.org/faostat/en/#data/FS

[10] The average annual value of food imports during the last five years (2016-2020) was USD 1,558 Mn. See Central Bank of Sri Lanka. (2021). *Annual Report 2021.* Colombo: Central Bank of Sri Lanka.

[11] Food and Agriculture Organization. (2022). *FAOSTAT.* Retrieved May 10, 2022, from FAO: http://www.fao.org/faostat/en/#data/FS

shows the movement of the indices of agriculture production, imports and exports. Even though gross agricultural imports into the country grew threefold from USD 698 Mn in 1961 to USD 2,382 Mn in 2020, the growth in gross agricultural exports from USD 1,572 Mn in 1961 to USD 2,744 Mn in 2020 was more than sufficient to balance the rising food imports into the country. Hence, food availability has hardly been a problem in the country over the years.

Rice is the staple diet item of Sri Lankans. Other food crops such as pulses, roots and tuber crops, vegetables, green leaves, condiments, spices and fruits play a supplementary role in local produce. Sri Lanka was near self-sufficient in rice and rice imports amounted to less than 1% of local production. Hence, the value of rice imports was at a comparatively low level. Similarly, the primary source of vegetables, green leaves, pulses (other than dhal), root crops, and many spices

Table 11.1
Production and Imports of Major Food Items, 2020

Food Item	Production (MT)	Imports (MT)	Value (LKR Mn)
Cereals			
Rice	3,482,000	16,000	1,936
Wheat flour	-	1,404,000	71,366
Pulses			
Green gram	13,497	-	-
Cowpea	13,216	-	-
Dhal	-		13,434
Roots and tubers			
Cassava	314,846	-	-
Potatoes	65,085	127,000	
Red onion	65,874	N/a	12,892
Big onion	43,018	266,000	
Sugar	60,000	683,000	51,146
Milk and milk products			
Milk (Mn litres)	491[a]	102,355 (MT)	61,933
Meat and meat products			
Beef	29,540	77	62
Poultry	216,240	128	34
Eggs (Mn)	2,435	1,742 Kg	172,828
Pork	9,005	83	54
Fish and fish products			
Fresh fish/fish and fish products	428,740	85,809	35,504

Notes: a: Local production refers to fresh milk in litres. Imports refer to milk products in MT.

Sources: Department of Census and Statistics. *Agriculture Statistics 2022;* Central Bank of Sri Lanka. *Economic and Social Statistics 2021;* Ministry of Fisheries and Aquatic Resources. *Fisheries Statistics 2021;* Department of Animal Production and Health. Livestock Statistics 2022.

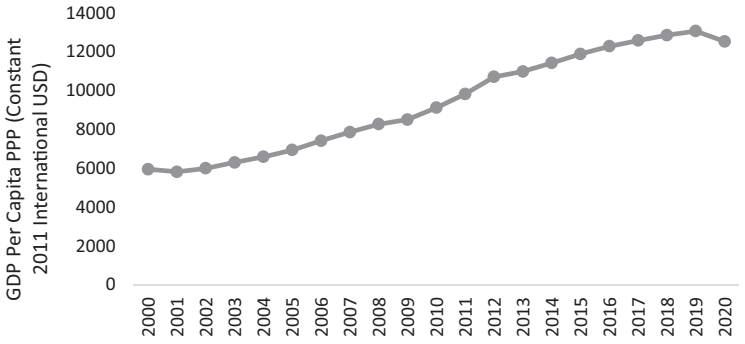
and fruits are locally produced; hence, imports are either nil or negligible. However, significant foreign earnings are spent on importing a few supplementary food items. Examples are dhal (lentils) and onions. Bread and wheat flour products provide an alternative to rice-based meals. However, the wheat crop is not cultivated in Sri Lanka and therefore, the country spends significantly on wheat flour imports. The annual value of imports of wheat products is the highest among imported food items, followed by milk products and sugar (Table 11.1).

Unlike wheat, Sri Lanka produces both sugar and milk, but the local production is insufficient to meet the demand. High import costs of wheat, sugar and dairy products have been considered a perennial burden on the local economy. Hence, attempts are underway to reduce wheat consumption by promoting rice-based products as a substitute and boosting the local production of sugar and milk. The animal protein content of the Sri Lankan diet is mainly sourced from fish and poultry. Marine sources are the primary supply source of fish. Around 24% of the total fish production of 428,740 metric tonne (MT) came from inland fisheries in 2020. While the country is a net exporter of fish, many fish products – especially dried and canned fish – are imported. The annual value of imports of fish products exceeded USD 188 Mn in 2020. In the cases of poultry and eggs – the other major sources of animal proteins in the diet – local production increased rapidly during the last few decades and imports are negligible. Table 11.1 provides an overview of the availability of major food types in Sri Lanka.

11.3.2 Access to Food

The availability of adequate food and a supply of nutrition at the national level does not necessarily ensure food security unless households have enough physical and economic access to food. To a significant extent, the level of income and poverty determine access to sufficient food at the household level, and poor outcomes of both could lead to malnutrition. As shown in Figure 11.2, Sri Lanka has achieved significant progress in GDP per capita on purchasing power parity (PPP) terms with a steep surge from USD 5,950 in 2000 to USD 12,537 in 2020, suggesting increased economic access to food by households. However, such national-level figures may not reflect the true picture of access to food by households.

Figure 11.2
GDP Per Capita PPP (USD) 2000-2020



Source: Food and Agriculture Organization. (2022). *FAOSTAT.* Retrieved May 10, 2022, from FAO: http://www.fao.org/faostat/en/#data/FS

Hence, household income and expenditure (HIES) data on household income, poverty, and inequality should also be considered in examining household access to food. Mean household incomes registered substantial growth over the years from Sri Lankan Rupees (LKR) 12,803 in 2002 to LKR 76,414 in 2019 at current prices, while the incidence of poverty in the country declined steadily from 22.7% in 2002 to 3.2% in 2019 (Table 11.2). However, the Gini coefficient of mean household income slightly worsened from 0.43 in 1990/1991 to 0.46 in 2019, showing increased inequality. Still, the long-term upward trend in household income levels and the continuing downward trend in overall poverty indicate improved economic access to food. However, the real impact of these parameters is highly dependent on food price volatility which will be discussed later.

General infrastructure such as roads and specific infrastructure such as storage facilities and food distribution outlets are required to ensure that food reaches households adequately. This is supported by the road network in Sri Lanka which has expanded significantly over the last decade. Sri Lanka has the highest road density of any country in South Asia, with some 173.9 kilometres (Km) of roads per 100 Km^2 of land as of 2016.[12] However, significant district inequality exists in road density, where serious road accessibility problems remain when transporting food beyond the Western Province. Apart from density, road quality and the width of roads are the significant gaps affecting access to food markets in rural areas, especially in the estate sector and specific areas in upcountry districts. Moreover, storage facilities, milling capacities, refrigeration and canning facilities have not improved much over the years to ensure better access to food.

The prevalence of undernourishment is an estimate of the population whose regular food consumption is insufficient to provide the dietary energy levels required to maintain an active and healthy life.[13] The prevalence of undernourishment

Table 11.2
Trends in Household Income and Poverty

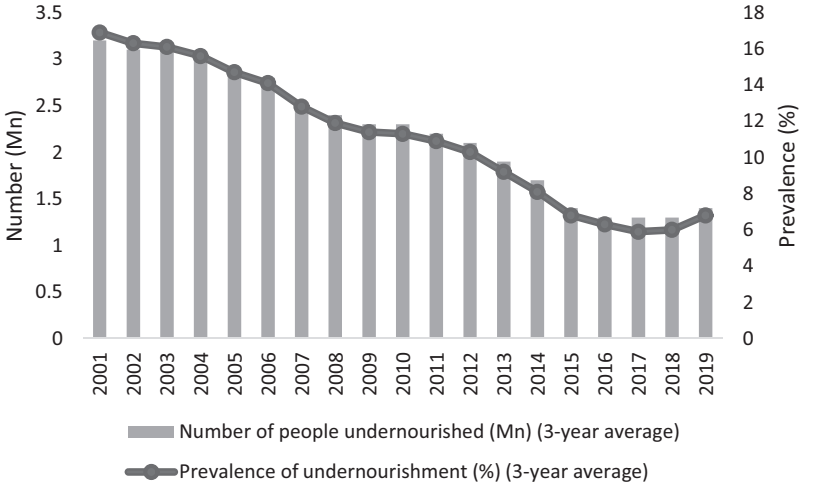
Survey Period	Mean Household Income (LKR/Month)	Incidence of Poverty Inequality (%)	Inequality (Gini Coefficient)
1990/1991	3,549	26.1	0.43
1995/1996	6,476	28.8	0.46
2002	12,803	22.7	0.47
2005	20,048		0.47
2006/2007	26,286	15.2	0.49
2009/2010	36,451	8.9	0.49
2012/2013	45,878	6.7	0.48
2016	62,237	4.1	0.45
2019	76,414	3.2	0.46

Source: Department of Census and Statistics. *Household and Income Expenditure Survey* (Various years).

[12] Exportgov. (n.d.). *Sri Lanka Infrastructure*. Retrieved May 10, 2022, from Exportgov: https://legacy.export.gov/article?id=Sri-Lanka-Infrastructure#:~:text=Sri%20Lanka%20has%20the%20highest%20road%20density%20of,170%20kilometers%20of%20expressways%20as%20at%20end%202018.

[13] Food and Agriculture Organization of the United Nations (n.d.). *Sustainable Development Goals*. Retrieved May 10, 2022, from FAO: https://www.fao.org/sustainable-development-goals/indicators/211/en/

Figure 11.3
Number of People Undernourished and Prevalence of Undernourishment



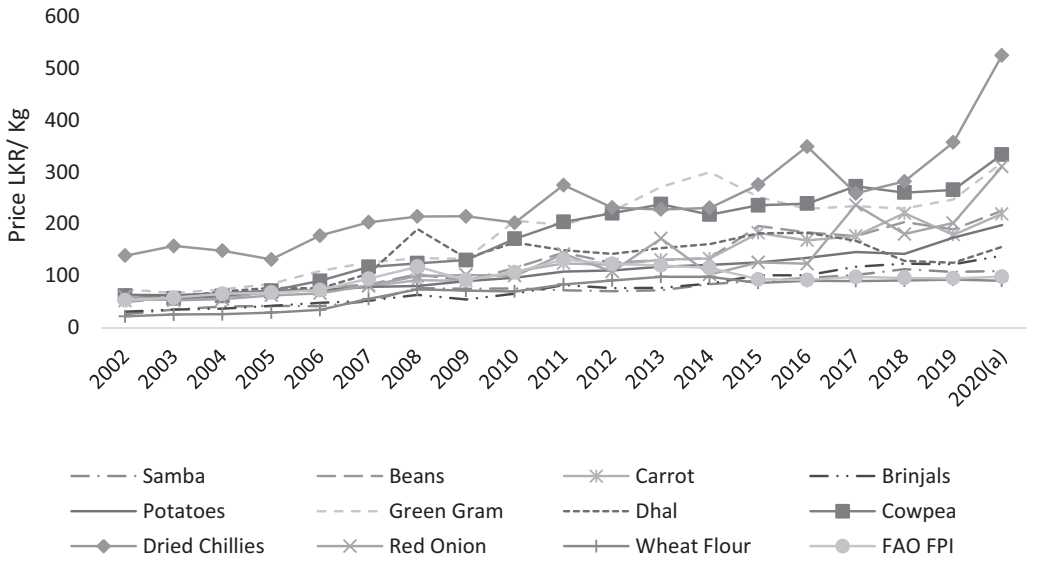
Source: Food and Agriculture Organization. (2022). *FAOSTAT.* Retrieved May 10, 2022, from FAO: http://www.fao.org/faostat/en/#data/FS

more than halved from 16.9% in 2001 to 6.8% in 2019, with the number of undernourished people dropping from 3.2 Mn in 2001 to 1.4 Mn in 2019 (Figure 11.3). This shows substantial progress towards achieving SDG Target 2.1 which aspires "by 2030 to end hunger and ensure access by all people, particularly the poor and people in vulnerable situations including infants, to safe, nutritious and sufficient food all year round."

Fluctuations in agricultural prices have been a general phenomenon observed throughout the history of commercial agriculture. This results from agriculture being a biological production process, often undertaken by many small producers. These price changes result from the demand and supply of the commodity in question and these, in turn, are closely related to changes in biological, economic, institutional and political environments. In the long run, food prices show general 'trends', either upward or downward. The direction depends on the relative magnitudes of growth in demand and supply. If the demand growth rate exceeds supply, the long-term price trends would be upward and vice versa. Figure 11.4 shows that both the domestic and global food prices have been on an upward trend in nominal terms for all the food commodities.

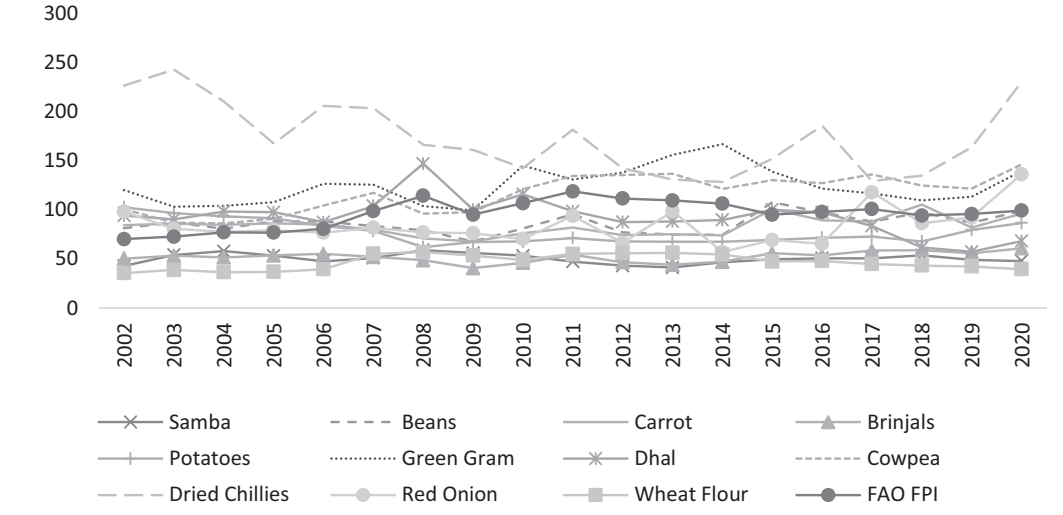
Figure 11.5 shows a steady decline in the real price of staple grains but a slight increase and high volatility in the prices of fruits, vegetables, pulses, fishery and livestock products. High volatility is mainly due to medium-term 'cyclical' fluctuation, which is often related to changes in broader business cycles and short-run 'seasonal' price fluctuations due to agricultural production's seasonal (or annual) weather-dependent nature. The implications of falling real prices of staples in the world have been positive for some products imported to Sri Lanka such as wheat flour. While net food producers benefit from rising relative prices of non-staples, net consumers lose due to poor access to more nutritious food which has severe implications for malnutrition.

Figure 11.4
Fluctuation of Nominal Food Prices with FAO FPI



Source: Food and Agriculture Organization. (2022). *FAOSTAT.* Retrieved from May 10, 2022, from FAO: http://www.fao.org/faostat/en/#data/FS

Figure 11.5
Fluctuation of Real Food Prices with FAO FPI



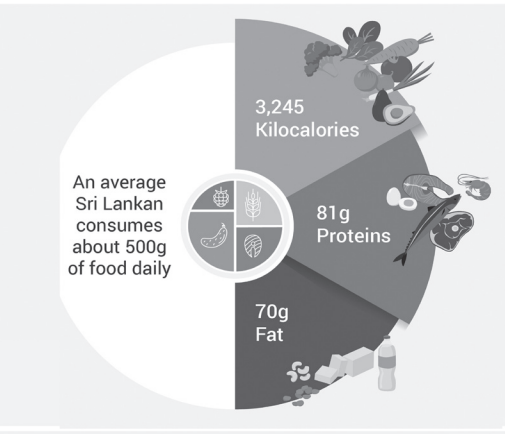
Source: Department of Census and Statistics. *Agriculture Statistics 2022;* Food and Agriculture Organization. (2022). *FAOSTAT.* Retrieved from May 10, 2022, from FAO: http://www.fao.org/faostat/en/#data/FS

11.3.3 Utilisation of Food and Nutrition Status

According to the food balance sheets published by the Department of Census and Statistics (DCS), there is an increasing trend in food production. Accordingly, the per capita availability of calories and proteins (g/day) too has increased. This generally implies improved food security even though it does not necessarily follow at the household level.

The per capita availability of nutrients from various food items consumed by Sri Lankans in 2020 is presented in Table 11.3. Here, the nutrition intake from the total availability of respective food items covering local production and imports has been considered. It shows that Sri Lanka depends more on imports of sugar, pulses, wheat flour and whole dried milk than local production. According to the statistics, an average Sri Lankan consumes about 0.5 kilograms (Kg) of food daily that offer 3,245 kilocalories of energy, 81 grams (g) of proteins and 70 g of fat. Cereals contribute to the highest share of energy and protein intake due to bulk consumption. Fish is the primary animal protein source followed by pulses, nuts and milk.

The Standard Sri Lankan Diet



Source: Author's illustration based on data from the World Food Programme, (2017).

These consumption levels meet the daily minimum nutrient allowances recommended by the Medical Research Institute (MRI) of Sri Lanka. However, the average daily consumption levels indicated by the food balance sheets are not evenly distributed across the population. Food consumption levels and therefore, nutrition intake vary highly among individuals and income classes. Hence, average consumption figures are not wholly reliable and statistics on distribution are important to understand the real situation of nutrition in Sri Lanka.

Table 11.4 shows the expenditure on food items by different income classes as estimated from the HIES 2019 survey. Expenditure on food – an indicator of household consumption levels – varies highly among different income classes. The lowest four income classes spent more than 40% of their income on food, but the actual level of expenditure is lower among all other income deciles. The highest income decile spends only 15% of its income on food, but the actual expenditure is almost four times that of the lowest income decile. The nutritional value of diets of different income deciles varies with the consumption levels but no statistical evidence is available on this aspect. These variations lead to the highly variable nutrition outcome among diverse socioeconomic categories.

Beyond access to sufficient food, SDG 2.1 specifically calls for access to nutritious food. Access to protein and micronutrient enriched nutritious food has been lagging relative to calorie-dense staples. While there are definite trends towards diet diversification, rising relative prices of non-staples, as seen in Figure 11.5, limit the affordability of a nutritious diet resulting in a high incidence of micronutrient deficiencies (hidden hunger) in the diets, especially in the poor. Hidden hunger is manifested in poor

Table 11.3
Summary of Food Balance Sheet – 2020

Items	'000 MT				Per Capita Availability			
	Production	Gross Imports	Available Supply	Food Net	Food Gms per day	Calories Per Day	Protein Gms Per Day	Fat Gms Per Day
Cereals	3,736	1,491	5,154	4,117	188	1,740	38	4
Starchy roots	485	139	618	558	25	87	1	0
Sugar	1,016	668	1,684	659	31	270	0	0
Pulses & nuts	41	276	290	280	13	121	8	1
Vegetable	2,368	319	2,676	2,194	100	86	4	0
Tree nuts (cashew, etc.)	34	1	35	31	1	10	0	1
Fruits	1,583	65	1,609	1,275	58	119	1	3
Stimulants	308	8	50	50	2	4	1	0
Spices	158	52	178	116	5	44	2	1
Beverages	214	2	216	216	10	24	0	-
Meat	240	1	241	241	11	41	4	3
Eggs	105	-	103	91	4	14	1	1
Fish & seafood	493	86	557	557	25	101	11	3
Milk & milk products	570	103	672	376	17	128	6	7
Oil & fats (including oil crops)	998	262	890	438	19	451	-	45
Miscellaneous	0	8	6	6	0	5	0	1
Total	12,349	3,481	14,979	11,205	509	3,245	81	70

Source: *Food Balance Sheet 2020,* Department of Census Statistics.

nutrition outcomes such as child stunting, wasting and high levels of anaemia for women. Symptoms of malnutrition measured in terms of various indicators show that a significant share of the Sri Lankan population suffers from malnutrition. The high relative price of protein and micronutrient-rich food also leads to consumers substituting processed food, which is often cheaper for fresh food, thus leading to the emerging problem of overweight and obesity in the country. Sri Lanka is therefore facing the emerging challenge of overnutrition even as it struggles to tackle the undernutrition problem.

Table 11.5 presents malnutrition indicators among children, an indicator of food utilisation outcomes in Sri Lanka. About 12.7% of births are of low weight and one-fifth of children in the age group 2-5 years are underweight. Underweight and stunting in children under five years are at 13.1% and 8.2%, respectively. Moreover, wasting in the same age group is 8.6%, of which, 7.5% is

Table 11.4
Average Monthly Household Expenditure on Food, by National Household Income Decile

Decile Group	Income Range (LKR)	Mean Expenditure (LKR)	Expenditure on Food (LKR)	As a % of Income
	Sri Lanka	76,414	22,130	29.0
1	Less than 20,140	20,734	8,910	43.0
2	20,141-27,588	31,961	13,806	43.2
3	27,589-33,972	39,628	16,796	42.4
4	33,973-40,380	48,632	19,480	40.1
5	40,381-47,544	54,416	21,372	39.3
6	47,545-55,634	63,020	23,085	36.6
7	55,635-66,761	70,013	25,175	36.0
8	66,762-82,858	88,199	27,587	31.3
9	82,859-114,984	112,376	29,968	26.7
10	More than 114,984	235,253	35,128	14.9

Source: *Household Income and Expenditure Survey 2019,* Department of Census and Statistics.

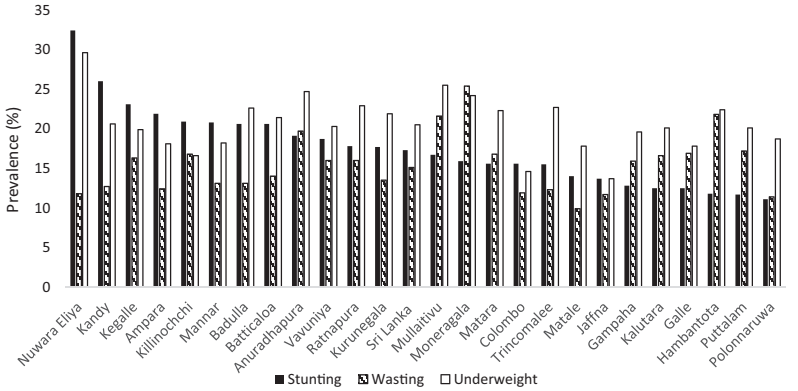
Table 11.5
Malnutrition among Children, 2015-2021

Indicators	%						
	2015	2016	2017	2018	2019	2020	2021
Low birth weight	11.36	11.2	11.8	11.9	12.3	12.3	12.7
Underweight							
Infants	6.94	6.47	6.2	6.6	6.4	6.1	5.9
1-2 years	11.38	14.25	12.8	12.4	12.4	11.9	11.4
2-5 years	16.97	21.23	20.5	19.8	19.7	19.0	18.6
Under five malnutrition							
Underweight	-	15.6	14.5	14.3	14.0	13.1	-
Stunting	-	9.2	9.0	8.9	8.4	8.2	-
Wasting	-	11.3	11.1	10.2	9.9	8.6	-
Severe wasting (SAM)	-	1.8	1.8	1.6	1.5	1.2	-
Moderate wasting (MAM)	-	9.5	9.2	8.6	8.4	7.5	-
Under five overweight	-	0.5	0.5	0.6	0.6	0.8	-

Source: RHMIS Routine Data, National Statistics, Family Health Bureau (2022) Statistics (health.gov.lk).

moderately wasted. Data also show a declining trend in malnutrition indicators. However, the progress shown in reducing the share of underweight children which is directly connected to food security has been relatively slow or stagnating. SDG Target 2.2 calls for an end to child stunting and wasting by 2025 and an end to all forms of malnutrition by 2030. Eliminating child malnutrition within the above time frame would be particularly challenging for Sri Lanka.

Figure 11.6
Disparity in Malnutrition



Source: *Demographic and Health Survey – 2016,* Department of Census and Statistics.

Data in Table 11.5 indicate national averages for Sri Lanka. However, there are identifiable groups whose conditions are poorer than the national averages (Figure 11.6). These include the estate sector population in upcountry areas and people in previously war-affected Northern and Eastern Provinces. Upcountry districts of Nuwara Eliya, Monaragala and Badulla, Trincomalee and Batticaloa districts in the Eastern Province and Mullaitivu and Mannar in the Northern Province represent the worst situation. This suggests that Sri Lanka has achieved significant progress in food security. However, the agriculture sector still has a long way to go in ensuring food availability, accessibility and affordability to overcome these challenges.

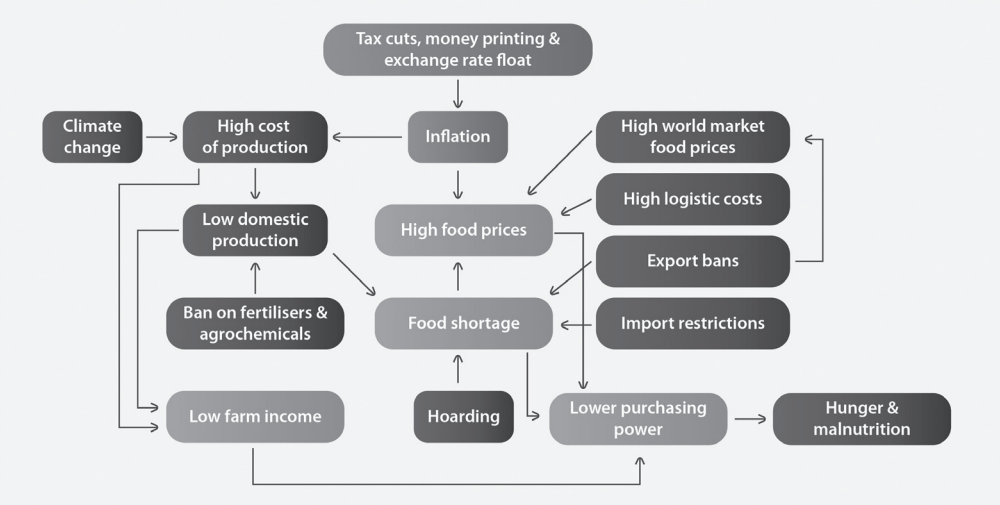
11.4 Sri Lanka's Current Food Crisis: Causes and Consequences

Sri Lanka has been experiencing its worst economic crisis since its independence in 1948. Foodflation driven by the COVID-19 pandemic and containment measures and its negative implications on food security is making headlines and causing concerns among the Sri Lankan public.

Figure 11.7 depicts the structural illustration of the causes and consequences developed after a careful assessment of the existing situation in the country. It presents a valuable and generalised understanding of how hunger and malnutrition have resulted from multi-sectoral development problems that can be most effectively analysed and explained in terms of food security and broader economic parameters. Further, this helps to understand the nature and causes of malnutrition in a simple framework. In this illustration, hunger and malnutrition are considered a critical dimension of a larger development problem that reaches across multiple sectors and social, political and economic institutions. What Sri Lanka is experiencing today is not just a food crisis. It is a multidimensional economic crisis compounded by food insecurity due to rising food prices and shortages threatening lives and livelihoods.

As discussed previously, even before the economic crisis and the pandemic, malnutrition rates across Sri Lanka were already high. However,

Figure 11.7
Causes and Consequences of the Current Food Crisis



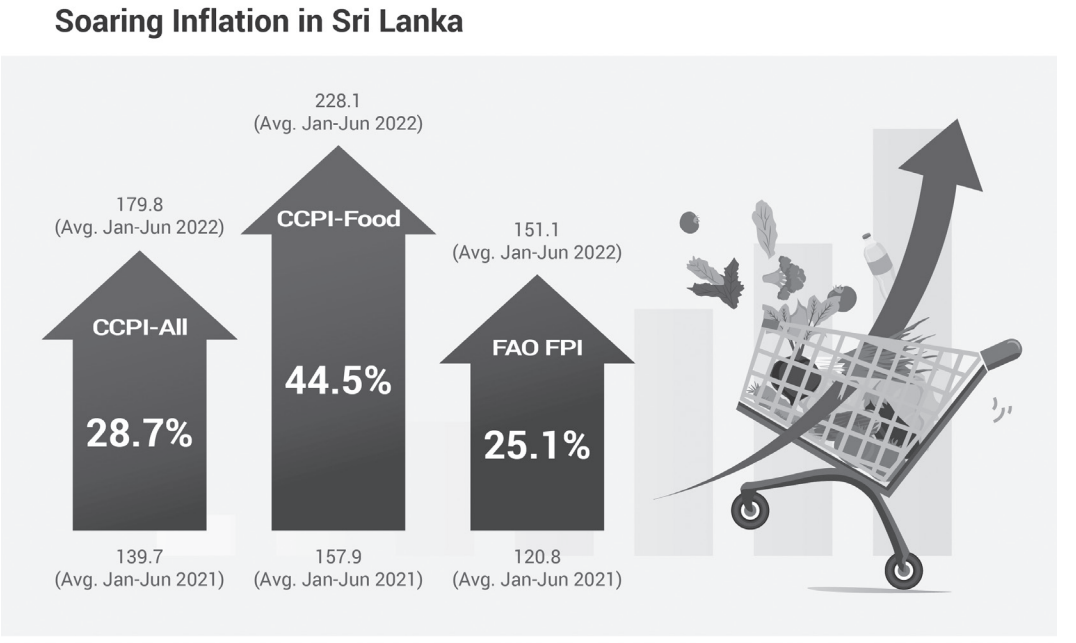
Source: Author's illustration.

the current economic crisis will likely aggravate this. The latest food security assessment by the World Food Programme (WFP) notes that about 30% of the population (6.26 Mn people) are food insecure.[14] Further, most households (61% of the surveyed) regularly employ food-based coping strategies such as eating less preferred and less nutritious food and reducing the amount of food they eat. These developments mean that 40% of households are not consuming adequate diets. Further, an estimated 200,000 households are using emergency livelihood coping strategies that are likely to impact their income-generating activities severely. It is anticipated that more people will resort to these coping strategies as the crisis deepens. As Figure 11.7 depicts, the immediate cause of hunger and malnutrition is low purchasing power by households mainly due to high food prices (food inflation), food shortages and decreased income which cripple people's ability to put sufficient and nutritious food on the table.

Continuous rising food prices and food security challenges are nothing new to Sri Lanka. However, the country has not faced a crisis of this magnitude in food availability for a few decades, despite experiencing issues in food access, utilisation and stability. Especially, widespread shortages are evident in many essential food items like flour, milk powder and rice, and high food inflation owing to macroeconomic reasons and domestic sectoral policy decisions.

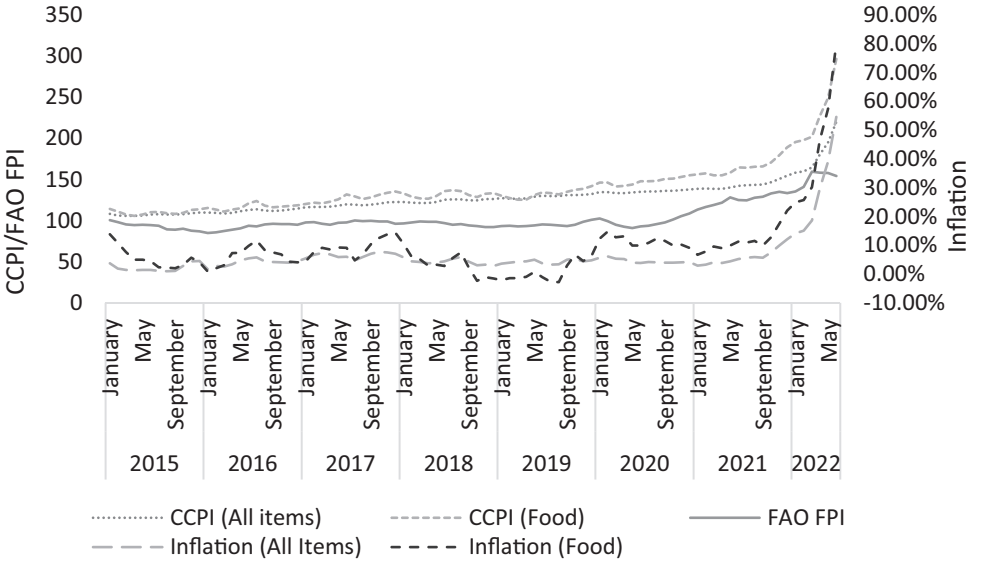
Inflation measured through the Colombo Consumers Price Index (CCPI) for all items surged by 29% in the first six months of 2022 compared to the same period in 2021. In contrast, the food price inflation alone grew by a staggering 45% during the same period (see infographic). By contrast, the FAO food price inflation (FPI) rose by 25% over the same period showing that Sri Lanka's foodflation has been propelled by the rise in both the world market prices and domestic inflation. Food inflation has risen

[14] World Food Programme. (n.d.). *Sri Lanka*. Retrieved May 10, 2022, from World Food Programme: https://www.wfp.org/countries/sri-lanka



Source: *Department of Census and Statistics, (2022) and United Nations Food and Agriculture Organization, (2022).*

Figure 11.8
CCPI Inflation for All Items and Food, and FAO FPI



Source: *Inflation and Prices (2022),* Department of Census and Statistics.

exponentially and reached an alarmingly high 80% in June 2022.

Conflicts remain a key driver of food insecurity in the world. After the COVID-19 outbreak, the Russia-Ukraine war has shaken commodity markets and food prices while threatening global food security. Russia and Ukraine are important food import sources for Sri Lanka; together, these accounted for about 9% of Sri Lanka's food imports in 2020. As shown in Figure 11.9, Sri Lanka imported 45% of its wheat requirement (equivalent to USD 164 Mn) from Russia and Ukraine in 2020. These countries together accounted for nearly 53% of total imports of peas (USD 11 Mn) and 25-75% of total imports of maize, sunflower oil, soya beans, coriander and chickpeas (exceeding USD 1 Mn each). Further, Sri Lanka spent USD 5.6 Mn importing fertilisers from these markets, equivalent to 2% of the total fertiliser imports.

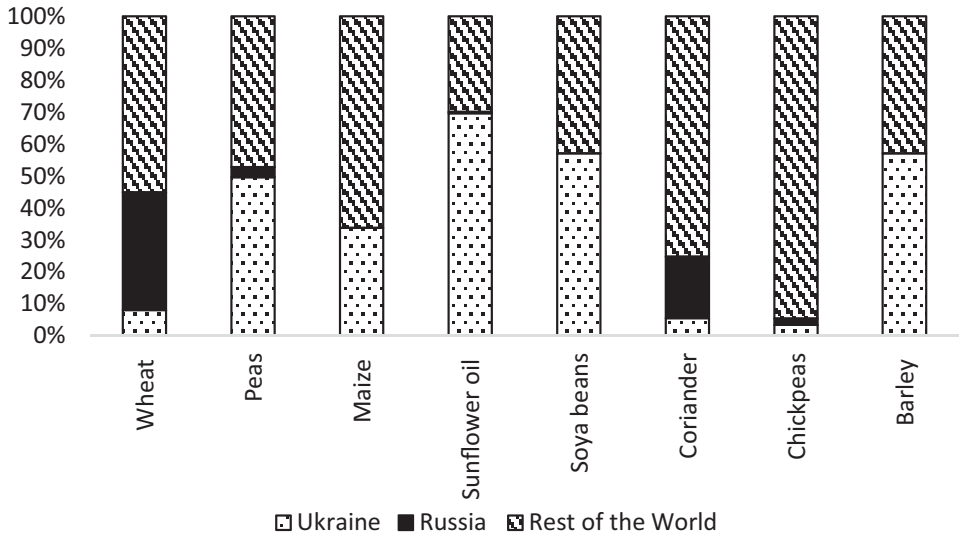
Sri Lanka is a net food, fertiliser and fuel importing country. The volatility of global oil prices, rising international food and intermediate input prices and high logistic costs coupled with the compounded impact of a steep currency depreciation drastically contributed to food price inflation.

The COVID-19 affected global oil prices, but price hikes made headlines with crude oil prices soaring following Russia's invasion of Ukraine in February 2022. Global crude oil price (Brent) surged by around 12% to USD 110.49 a barrel by July 2022, from USD 98.56 a barrel in February 2022 after hitting a high of USD 133.18 in March 2022 (Figure 11.10). The oil price shock worsened Sri Lanka's economic woes triggering inflation pressures. Fertiliser prices too surged drastically. Urea prices increased from USD 202/MT in June 2020 to USD 328/MT in April 2021 and stood at USD 925/MT in April 2022.[15] Sri Lanka is a net food, fertiliser and fuel importing country. The volatility of global oil prices, rising international food and intermediate input prices and high logistic costs coupled with the compounded impact of a steep currency depreciation drastically contributed to food price inflation.

Food export restrictions are once again a key concern as before, when food prices increased in 2008 and during the COVID-19 pandemic (Figure 11.11). Fertiliser export restrictions among fertiliser-producing countries too worsened the situation. In May 2022, India banned most wheat

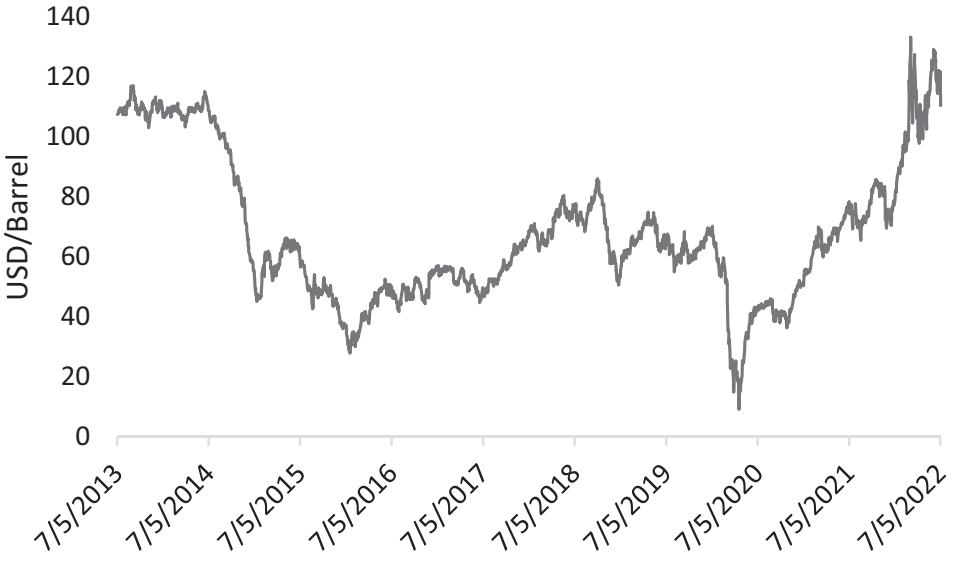
[15] Index Mundi. (2022). *Commodity Prices. Urea. Urea Monthly Prices.* Retrieved May 10, 2022, from Index Mundi: https://www.indexmundi.com/commodities/?commodity=urea&months=60

Figure 11.9
Sri Lanka's Food Imports from Russia and Ukraine



Source: UN Trade Map.

Figure 11.10
Fluctuation of Brent Crude Oil Prices



Source: Macrotrends 2022. *Brent Crude Oil Prices-10-Year Daily Chart.* Retrieved May 10, 2022, from Macrotrends: https://www.macrotrends.net/2480/brent-crude-oil-prices-10-year-daily-chart

exports to safeguarde domestic food security for its 1.4 Bn people, pushing the global price of wheat to record highs. In the same month, India banned exports of sugar as well. Indonesia has imposed a domestic market obligation on palm oil to ensure 10 Mn tonne of palm oil remain at home. As of May 2022, more than 20 countries had imposed food export bans and licensing for goods having about 10.6% traded calories.[16] Such measures, including rising prices, food shortages and food insecurity have had disastrous consequences for vulnerable people in food-importing countries like Sri Lanka which are already affected by the COVID-19 pandemic. Moreover, this food crisis seems to be more prolonged than previous ones, which means the consequences can be severe for vulnerable countries like Sri Lanka.

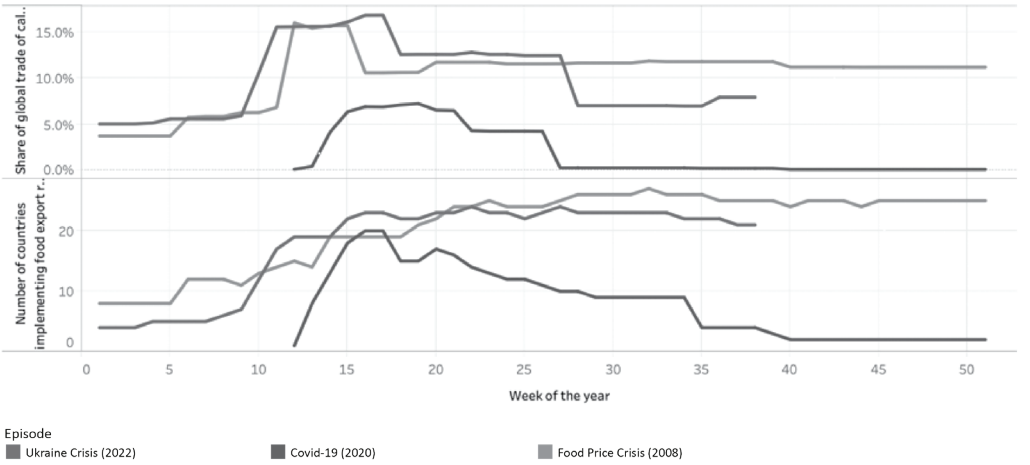
Aside from global developments, domestic factors had a sizeable impact on Sri Lanka's food inflation. Reduced foreign currency earnings were mainly due to a massive drop in tourism revenue and remittances following the pandemic. The foreign currency shortage forced the government to impose import restrictions on several food commodities. The measures adopted included import bans, import control licenses, credit basis requirements and special commodity levies (SCL). Under the new import regulations, food commodities like fruits, vegetables, coconut products, rice, cereal, oilseed products and sugar are not permitted to be imported using finance terms such as payment in advance, open account, and letter of credit. Food products like fish, meat, milk products, vegetables, wheat, rice, cereal, starches, oils and coconut products may be imported but only under 90 days or 180 days postponed payment terms. The total coverage of the food imports to the country which are under quantitative and price import restrictions is about 89% based on 2017 values.[17]

Reduced foreign currency earnings were mainly due to a massive drop in tourism revenue and remittances following the pandemic. The foreign currency shortage forced the government to impose import restrictions on several food commodities.

[16] Debucquet, David Laborde., & Mamun, Abdullah. (2022). *Documentation for Food and Fertilisers Export Restriction Tracker: Tracking Export Policy Responses Affecting Global Food Markets During Crisis*. Food Export Restrictions Tracker Working Paper 2. Washington, D.C.: International Food Policy Research Institute.

[17] Wijesinghe, A., & Yogarajah, C. (2022, April 29). Sri Lankan Food Crisis: *What is the Role of Imports?* Retrieved July 10, 2022, from Talking Economics: https://www.ips.lk/talkingeconomics/2022/06/29/sri-lankas-food-crisis-what-is-the-role-of-imports/

Figure 11.11
Export Restrictions



Source: Laborde, David, Abdullah Mamun., & Marie, Parent. (2020). *COVID-19 Food Trade Policy Tracker [Dataset].* Washington, D.C.: International Food Policy Research Institute: https://www.ifpri.org/project/covid-19-food-trade-policy-tracker.

Supply-side shocks negatively affected food production, which is a major component of the foodflation. One of the significant supply shocks that affected food production and contributed to food shortages and foodflation was the sudden ban on chemical fertiliser in April 2021. While it aimed to minimise threats to soil health and water pollution caused by the overuse of chemical fertilisers, Sri Lanka's attempt to become the first 100% organic country in the world was misplaced. While the ban was lifted in November 2021, the damage from this flawed policy decision had already occurred giving rise to a string of adverse events on food security.

When the ban was imposed, the Yala cultivation season in 2021 had already started with the available fertiliser. Therefore, no observed impact was found on paddy cultivation relative to the previous Yala season. However, even with the lifting of the ban, paddy production (39%) and paddy yield (35%) dropped significantly in the Maha 2021/2022 season relative to the previous Maha season due to a shortage of fertiliser.

One of the significant supply shocks that affected food production and contributed to food shortages and foodflation was the sudden ban on chemical fertiliser in April 2021.

Since then, exorbitant fertiliser prices in the world market and export restrictions set out by fertiliser-producing countries exacerbated the problem further. This has severely impacted Sri Lanka's food security, requiring the country to import and seek support from several countries to fill the production gap. Among these were rice imports estimated roughly at 800,000 MT. The implications of continuing fertiliser shortages in the Yala 2022 season which have already occurred, will likely be significant unless swift action is taken.

Climate change too has emerged as a major challenge to achieving Sri Lanka's food security goals. It can potentially create significant losses to farmers' livelihoods unless addressed as a priority. Overall, information on observed and projected changes suggests that Sri Lanka's climate is undergoing three main changes: a gradual increase in ambient air temperature, changes in the distribution pattern of rainfall and an increase in the frequency and severity of extreme weather events. However, Sri Lanka did not face severe problems with drought or floods during the last four seasons (99% harvesting from the sown extent from 2020 Yala to 2021/2022 Maha seasons) unlike in the 2016/2017 Maha season, in which, at least 29% of the sown extent could not be harvested due the impacts of climate change.

11.5 Summary and Conclusion

Sri Lanka has shown progress over the last decades on economic development and SDGs, reflecting the country's elevation to middle-income status. Despite the progress, the country has been facing many socioeconomic challenges, including those on hunger and malnutrition. The outbreak of COVID-19 and its containment

In the short run, this food crisis is a humanitarian problem, and short-term relief issues can be prioritised to fulfil people's immediate food needs. Relief notwithstanding, the real and sustainable solution to the recurring foodflation and food shortages lies in managing the demand and supply of food in the long run.

measures seriously affected the economy and livelihoods of vulnerable people in Sri Lanka, hindering the progress towards achieving the SDGs. The more recent macroeconomic instability has added to the pressures. High inflation, import restrictions and critical goods and services shortages have generated public unrest. Rising food prices, in particular, are a cause of major concern. Moreover, food imports are being hampered by rising prices in the world market due to the Russia-Ukraine war and food export restrictions by primary producers.

Adding to these is the lingering impact of the government's decision to ban chemical fertiliser imports, resulting in shortages of domestic food production and price hikes. The food crisis seen today, with a sharp increase in basic food prices and food shortages, highlights the extreme vulnerability of the country's current agricultural and food system. Higher food prices have limited the food supply to poor households and led them to switch to less nutritious diets, resulting in both short-term and long-term adverse health effects.

In the short run, this food crisis is a humanitarian problem and short-term relief issues can be prioritised to fulfil people's immediate food needs. Relief notwithstanding, the real and sustainable solution to the recurring foodflation and food shortages lies in managing the demand and supply of food in the long run. Thus, the long-term solutions to the food crisis should materialise from developing domestic agriculture which is the primary driver of food security, to increasing the local production of a diverse group of nutritious foods and strengthening the food system to face future shocks. Accordingly, the following interventions are suggested to meet the current food crisis and help ensure a more resilient food system. Along with these recommendations, the lowest cost options and alternative ways of funding are also proposed wherever possible because of the country's financial constraints.

- Food aid in adequate quantities in correct localities is the immediate requirement. Therefore, a targeted food ration scheme covering essentials like rice, wheat flour and dhal to help the poor and marginalised, who are the most vulnerable, would be beneficial. The importation of these essential food items must be prioritised while cutting down on some non-essential food imports given the limited financial resource requirements while seeking food aid from donor countries and organisations such as the WFP and FAO. Also, promoting underutilised alternative crops for imported food such as cassava, finger millet, sorghum, black gram, and cowpea could be considered. However, for successful implementation, these relief programmes must be backed by efficient stock maintenance and food surveillance methods, including maintaining buffer stocks and measures to prevent food hoarding which are medium-term rather than immediate or short-term undertakings.

- Existing nutritional assistance programmes – such as the school meal, Thriposha, and Poshana Malla programmes – should be further strengthened. The WFP has been supporting the school meal programme since 2003. This programme can be further augmented by coupling it with school garden programmes to use locally grown food in school meals. Thriposha is produced locally using maize and soya beans as the main raw materials by Sri Lanka Thriposha Limited. Additional requirements could be sought from the private sector manufacturers of Thriposha alternatives as donations under corporate social responsibility (CSR) programmes or as

purchases at subsidised prices. In addition, donor organisations would be a good source for additional funding requirements. For example, the WFP is scaling up its operations between June and December 2022 to support 3 Mn people whose food security, nutrition and livelihoods are at risk.

- Ensuring a smooth supply of inputs has been highlighted in all agricultural plans, policies, and strategies as an important requirement in raising agricultural production. However, the situation has not improved much, and the case of chemical fertiliser use has deteriorated in Sri Lanka, especially after the chemical fertiliser ban. As such, importation and proper distribution of fertiliser, seeds and fuel for essential crop sectors giving preference to producers of nutritious food, should be rolled out as an immediate requirement on a priority basis while curbing some non-essential imports. For that, non-industrial fuel consumption can be minimised by adopting a quota system for fuel, promoting remote work, and facilitating low-cost sustainable transport modes such as hybrid, electric and non-motorised methods. Further, to address the cost of chemical fertiliser imports and related environmental implications, Sri Lanka should adopt a sustainable intensification (SI) approach that combines a gradual reduction of chemical input with good agricultural practices (GAPs) to enhance yields while protecting and improving long-term soil health. For this, the existing integrated pest management (IPM) and integrated plant nutrition management (IPNM) programmes and GAPs should be popularised among farmers. These measures should be carried out while adopting appropriate economic incentives, regulatory measures and support services so that the technical and allocative efficiency of using scarce resources can be maximised. Available funding from the World Bank Agricultural Sector Modernisation Programme (ASMP) and FAO technical assistance could be utilised for these activities.

- As a short-term measure, community gardens concepts such as Virginia Avenue Community Garden, Washington, D.C., or Community Gardens Australia can be established. A community garden is a shared, semi-public space where people in the surrounding neighbourhood share the work and harvest of maintaining a garden space for growing crops or even rearing livestock. The setup of a community garden and the way it is maintained can vary greatly from one to another. These can be established in an empty land and the neighbours can look after it. Another can be in the land of a religious place to be looked after by the devotees. It can be even in private land where neighbours can share the harvest in exchange for labour.

- Home gardening is another short-term measure that can be promoted by distributing seeds and planting materials at a subsidised rate as happened during the COVID-19 home gardening programme. However, lessons learnt from the previous home gardening programmes such as the need to provide continuous extension services and proper monitoring of the outcomes should be implemented to prevent scarce seeds and planting materials from being wasted to make it a success.

- As a long-term measure, improving the productivity of available cultivations through investment in research and development (R&D) throughout the value chain is required. Given the financial constraints,

strengthening and streamlining agriculture research institutes with key performance indicators (KPIs) to improve efficiency and make research more demand-driven and private sector-oriented would be more beneficial than diverting more funds. To attract private sector investments to the agriculture sector, existing impediments such as land acquisition problems, bureaucratic red tape, regulatory barriers, etc., must be eliminated. The donor community and private sector collaboration such as the Japan International Cooperation Agency (JICA) funded 'Leading Asia's Private Infrastructure Fund (LEAP)' could be tapped to bring more investments in improving the supply chain, including storage and transportation of food products, which has been a perennial issue in agricultural value chains.

- Government policy priorities are skewed towards food production, with much less attention paid to other food chain functions such as food storage and distribution. Sri Lanka needs to strengthen its storage capacity and maintain a buffer stock of essential food items through a national food bank with nodal points at the provincial council level. This can be established along the lines of the national charitable organisation in Canada, dedicated to helping Canadians living with food insecurity by supporting a network of provincial associations, affiliated food banks, and food agencies that work at the community level to relieve hunger. Similar community-level food banks are operated in Asian countries like Thailand, the Philippines, Malaysia and Singapore. Moreover, permanent mechanisms for public food distribution should be established at the central level. These mechanisms, which should have clear linkages with provincial and local government institutions, would help ensure timely, economical delivery and distribution of food to remote, rural, and vulnerable areas – areas that are subject to food deficits especially in crises. Additionally, the railway service that has a vast network should be utilised for a more economical distribution of food, which would mean fewer food miles and minimum post-harvest losses.

- Marketing is the biggest problem Sri Lankan farmers face. To correct market failures, private sector participation and public-private partnerships (PPPs) should be promoted where feasible to create a facilitatory environment, and significantly improve healthy food preferences and efficient and stable modern value chains through diverse approaches. These include trader-farmer contracts, contract grower systems, public-private-producer-partnerships (4P), etc. Further, digital technologies can be utilised to shorten supply chains and minimise information asymmetry. Strengthening market linkages for resilient value chains will ensure food products' traceability, quality, and safety. Financial resources for such partnership building and digitisation can be explored through the International Fund for Agriculture Development (IFAD) funded smallholder agribusiness programme (SAP), the FAO e-Agriculture initiatives and the EU Gama Smart programme among others.

- Overall, domestic food production, food imports, domestic and world market prices, input availability, and transportation and logistics systems should be continuously monitored to ensure national food availability and maintain household access to food. A regular monitoring system can safeguard the local food supply from international trade

restrictions and possible malpractice by local traders. In this connection, establishing a coherent, holistic food-monitoring programme should be a priority, to ensure that the country is better prepared for crises. The need to monitor the progress of the national food production programme through a real-time information system has already been identified as a priority under the National e-Agriculture Strategy and some initiatives have been taken to develop an agriculture management information system (AgMIS). A comprehensive food monitoring programme, supported by the Information and Communication Technology Agency of Sri Lanka (ICTA), can strengthen this.

12. Productive Employment and Decent Work for Youth in Agriculture

12.1 Introduction

Sri Lanka's youth population of 15-29-year-olds, who account for nearly a quarter of the country's total population, is facing rising unemployment levels in the wake of the coronavirus (COVID-19) -related economic setbacks and the economic crisis engulfing the country. Youth unemployment has historically been above national levels of unemployment. But the unemployment levels are rising further as per the Labour Force Survey (LFS) conducted by the Department of Census and Statistics (DCS), showing the unemployment rate of 15-24-year-olds and 25-29-year-olds in mid-2021 at a high 30% and 9.2%, respectively. For Sri Lanka, persistent and rising youth unemployment is of particular concern given its past experiences of two youth-led insurrections in the 1970s and 1980s during periods of economic and political instability.

However, Sri Lanka is not alone in high and rising youth unemployment levels. Across many parts of the world, youth unemployment remains high, and youth engagement in the labour market is declining. The latest available data suggest that 16% of the world's population is represented by youth, with approximately 1.2 billion (Bn) young people (including 361 million (Mn) youth in Central and Southern Asia, 307 Mn in Eastern and South-Eastern Asia and another 211 Mn in Sub-Saharan Africa).[1] As such, providing productive and decent work for youth is crucial. Towards this end, the Sustainable Development Goals (SDGs) give prominence to youth on the premise that "sustainable development meets the needs of the present without compromising the ability of future generations to meet their own needs".[2]

About 16% of the world's population is represented by youth, with approximately 1.2 Bn young people.

[1] United Nations. (2019). *International Youth Day.* Retrieved April 22, 2022, from United Nations: https://www.un.org/development/desa/youth/wp-content/uploads/sites/21/2019/08/WYP2019_10-Key-Messages_GZ_8AUG19.pdf#:~:text=According%20to%20the%20latest%20United%20Nations%20estimates%20of,in%202019%20youth%20numbered%201.2%20billion%20persons%20between

[2] United Nations. (2015). *Brief for GSDR 2015.* Washington, D.C.: United Nations.

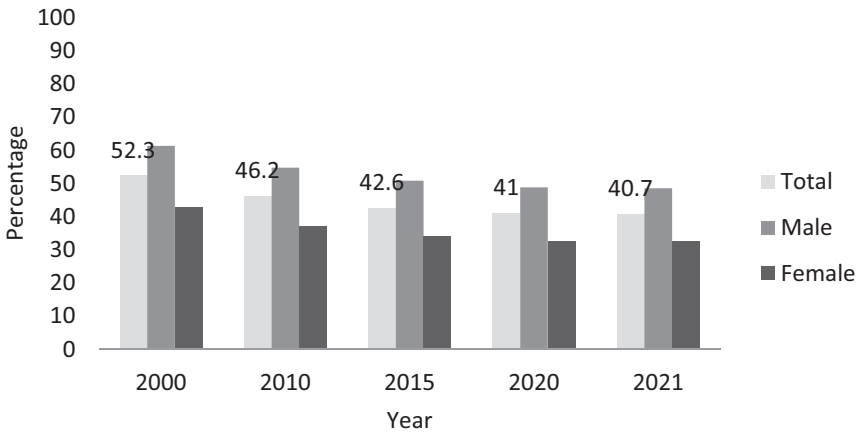
Eight SDG goals focus on youth: zero hunger, education, gender, decent work and economic growth, reduced inequalities and climate action. Goal 8 on productive employment and decent work, which aims to "promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all", is especially relevant to youth employment. This goal targets vulnerable groups such as young people, women and persons with disabilities entering the labour force. In this context, this chapter briefly discusses global trends in youth employment and examines, in detail, Sri Lanka's problem of youth unemployment and the potential for youth in the country's agriculture sector because of a discernible shift back to agriculture employment, as the service and industry sectors experience contractions amidst the current economic crisis. Strategies and policies are also recommended to enhance youth employment and decent work in agriculture.

12.2 Global Youth Employment Trends

The United Nations (UN) defines youth as the population within the age category of 15-24 years.[3] However, the age limit varies from country to country based on their sociocultural aspects, socioeconomic development status, etc. Thus, in contrast, the International Labour Organization (ILO) defines youth as those between the ages of 15-29 years. Based on the ILO definition, its data provides a global overview of youth labour force trends over time.

The world's youth labour force participation rate (who are employed or not employed) has been declining over the years (Figure 12.1). This is despite the global youth population growing from 1 Bn to 1.3 Bn in the same period. The explanation perhaps lies in youth engagement

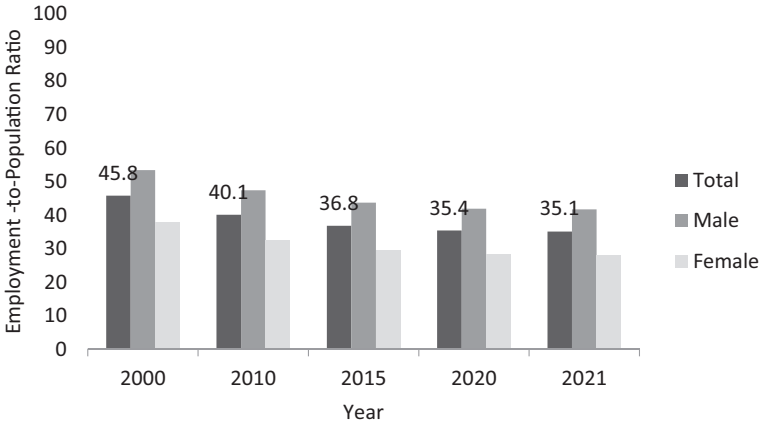
Figure 12.1
Youth Labour Force Participation Rate



Source: International Labour Organization. (2019). *ILOSAT-- Modelled Estimates and Projections.* Geneva: International Labour Organization.

[3] United Nations Development Programme. (2017). *Fast Facts: Youth as Partners for the Implementation of the SDGs.* Retrieved April 20, 2022, from United Nations Development Programme: https://www.undp.org/publications/fast-facts-youth-partners-implementation-sdgs

Figure 12.2
Youth Employment to Youth Working Age Population



Source: International Labour Organization. (2019). *ILOSAT-- Modelled Estimates and Projections.* Geneva: International Labour Organization.

in higher studies, vocational training, etc., as such opportunities have expanded over the years. Data indicate that female youth labour participation is lower than that of the youth male labour participation.

Youth employment in the working age population is also declining, showing a similar trend to the youth labour force participation rates (Figure 12.1). The overall trends suggest that youth worldwide face several challenges, one of the most important amongst them being unemployment. Even before the onset of the COVID-19 pandemic, youth were three times as likely as adults to be unemployed.[4] The explanations in favour of this are many. Limited employment experiences of youth, their

Figure 12.3a
Global Unemployment Rate

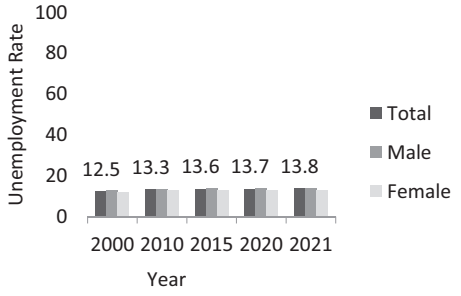
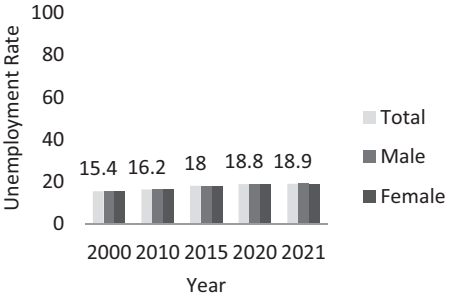


Figure 12.3b
Unemployment Rate in South Asia



Source: *ILOSAT- Modelled Estimates and Projections (2019),* and *Global Employment Trends for Youth (2020), International Labour Organization.*

[4] United Nations. (2018). *World Youth Report.* Washington, D.C.: United Nations.

educational backgrounds, the mismatch with jobs available in the market and failure or the inability to meet employer demands are some of them.

Figure 12.3a illustrates global trends in the youth unemployment rate. This is defined as a youth who does not have a job for more than four weeks, is willing, available, taking all the necessary actions to find a job, and is ready to accept a job offer within two weeks. Again, the data show a rising trend in the unemployment rate over the years, estimated at 13.8% as of 2021. The movements in global unemployment trends are similar for the South Asian region, but the unemployment rate is estimated at a higher 18.9% in 2021 (Figure 12.3 b).

Thus, many countries globally face considerable challenges towards achieving full and productive employment and decent work for youth. Indeed, with nearly 13% of youth estimated to be suffering from poverty,[5] their employment prospects are further weakened with the rising unemployment trend and limited access to decent work. For youth, the transition period from school and other training institutes into the labour market is the critical period in getting a decent and well-paid job. While youth are increasingly better trained with the requisite skills in a closely integrated and globalised labour market, significant gaps exist when employment outcomes are considered. Skills and training do not appear to be matched with labour demand. It is more often the case that due to these conditions, even though youth do find employment, they are probably frequently involved in vulnerable work conditions – i.e. accepting less secure jobs.

For youth, the transition period from school and other training institutes into the labour market is the critical period in getting a decent and well-paid job.

12.2.1 SDGs and Youth Employment

The methods and strategies adopted to meet the SDGs differ from country to country. Nonetheless, most focus on the 'five Ps' – people, prosperity, planet, peace, and partnerships in preparing their national frameworks. These frameworks include the nine main stakeholders recognised by the SDGs, including children and youth, women, indigenous people, non-governmental organisations (NGOs), local authorities, workers and trade unions, business and industry, scientific and technological community and farmers.[6]

The SDGs report of 2020 indicates that as of 2019, 98% of countries had a youth employment strategy or a plan to develop one shortly. Further, almost one-third of these countries had already formulated and operationalised the global SDG strategy for youth employment to provide productive and decent work. Decent work is

[5] United Nations. (2018). *World Youth Report.* Washington, D.C.: United Nations.

[6] Hwang, S., & Kim, J. (2017). *UN and SDGs: A Handbook for Youth.* Washington, D.C.: United Nations.

With changing aspirations and attitudes, young people are less likely to perceive agriculture as a viable or attractive employment path.

broadly defined as productive job opportunities that deliver a fair income, security in the workplace and social protection, better prospects for personal development and social integration, freedom for youth to express their concerns, organise and participate in decisions that affect their lives, etc.[7]

Since youth unemployment is a persistent issue in developing countries, the solutions and strategies often include employment generation in agriculture, which continues to be a key source of jobs and livelihoods in these countries. Agriculture is identified as the single largest employer in developing countries,[8] and the agriculture sector remains at the heart of these economies, often utilising up to 70% of the labour force.[9] But this sector is also mired in high poverty levels in most developing countries. Increasingly, with changing aspirations and attitudes, young people are less likely to perceive agriculture as a viable or attractive employment path.

As such, it is crucial to bring about a transformation in the agricultural sector if it is to be positioned to attract youth and offer productive and decent work opportunities. In turn, youth can be a crucial resource for increasing agricultural productivity. Given ageing populations in many parts of the world, youth represent an ideal segment to foster enhanced agricultural productivity given their ability to adapt to new concepts, ideas, and technologies, which are critical to favourably transforming the agriculture sector.

Rural and agricultural markets, too, are transforming. In most instances, in addition to direct employment in agriculture, farm and non-farm employment opportunities such as in agri-food chains are linked to sustainable agriculture, agribusiness development and related support services. These opportunities remain largely unexploited. For youth to start up and carry profitable agro-businesses, they have to be equipped with the requisite knowledge and skills not only in agriculture but also in related areas such as financial services, entrepreneurial aspects, information and communications technology (ICT), etc. To achieve this transition successfully, properly targeted youth policies and investments should be in effect.

Much progress is evident across countries towards this end, even in some developing countries. Several policy measures and strategies have been adopted, mainly focusing on youth, to improve access to finance and investments

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7 Sustainable Development Goals Helpdesk. (n.d.). *Decent Work*. Retrieved April 20, 2022, from Sustainable Development Goals Helpdesk: https://sdghelpdesk.unescap.org/knowledge-hub/thematic-area/decent-work

8 Food and Agriculture Organization. (n.d.). *Sustainable Development Goals.* Retrieved April 20, 2022, from Food and Agriculture Organization: https://www.fao.org/sustainable-development-goals/goals/goal-8/en/

9 Food and Agriculture Organization. (2014). *Youth and Agriculture: Key Challenges and Concrete Solutions.* Retrieved April 20, 2022, from Food and Agriculture Organization: https://www.fao.org/sustainable-food-value-chains/library/details/en/c/265736

for smallholder producers, strengthen technical and entrepreneurial capacities, and enhance agriculture working conditions and labour standards. Moreover, countries are introducing policy interventions to improve access to skill development and education, access to resources such as land, youth involvement in decision-making processes, and access to financial services such as credit, savings and insurance, etc.[10]

For instance, an agri-enterprise development and management programme implemented in Cambodia encourages out-of-school youth in rural areas to follow professional careers in agriculture. The training programme is scheduled for one year. It covers ecologically friendly agricultural techniques, self-development and social education, farm management, business plan development, self-reliance savings, financial management and report writing skills. Brazil's largest labour union of rural workers initiated a youth knowledge programme to provide training on family farming, health, and labour laws and associations as different modules of these training courses.[11]

12.3 Sri Lankan Youth Employment

In Sri Lanka, too, youth are considered critical to achieving the SDGs by 2030 and ensuring that the country meets its longer-term development goals. Sri Lanka's National Youth Policy (NYP) of 2014 – which identifies youth as the population between the ages of 15-24 years – estimates the youth population to be nearly a quarter of the total population.[12] This segment suffers from high unemployment. In 2018, the youth unemployment rate (age 15-29) was 16.3%. Although successive governments have introduced several strategies and policies to tackle this problem, youth unemployment continues to be a significant obstacle in the path to the country's overall development.

With a sizeable base, Sri Lanka's agriculture sector has considerable potential to generate productive and decent employment for youth. But, in Sri Lanka, too, young people do not perceive agriculture as a viable or attractive employment path, as aspirations and attitudes change.[13] However, recent developments in the sector with new agriculture technologies, digital transformation and smart farming can provide renewed incentives for youth to get involved. These issues are discussed in the following section.

12.3.1 Status of Youth Employment

While the 2014 NYP recognises Sri Lankan youth as those aged between 15-24 years, this chapter considers youth as 15-29-year-olds for the analysis. The analysis uses 2018 LFS data as representative of pre-pandemic economic conditions. As shown in Figure 12.4, the youth employment to population ratio in Sri Lanka in 2018 stood at 34%. The LFS data indicate that the unemployment rate of youth aged 15-29 was 16.3% in 2018.

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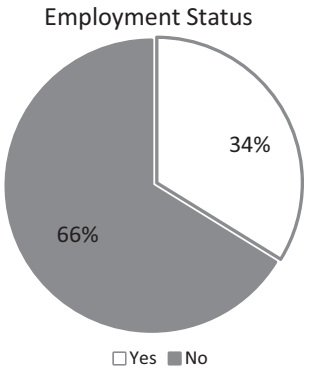
[10] Food and Agriculture Organization. (n.d.). *Decent Rural Employment.* Retrieved April 20, 2022, from Youth employment: https://www.fao.org/rural-employment/work-areas/youth-employment/en/

[11] Food and Agriculture Organization of the United Nations, Technical Centre for Agricultural and Rural Cooperation and International Fund for Agricultural Development. (2014). *Youth and agriculture: Key Challenges and Concrete Solutions.*

[12] National Youth Policy. (2014). *National Youth Policy of Sri Lanka.* Colombo: National Youth Policy.

[13] Withanage, D., & Damayanthi, B. (2019). Factors Influencing the Youths' Interest in Agricultural Entrepreneurship in Sri Lanka. *Developing Country Studies, 9*(12), 32-40.

Figure 12.4
Youth Employment in Sri Lanka



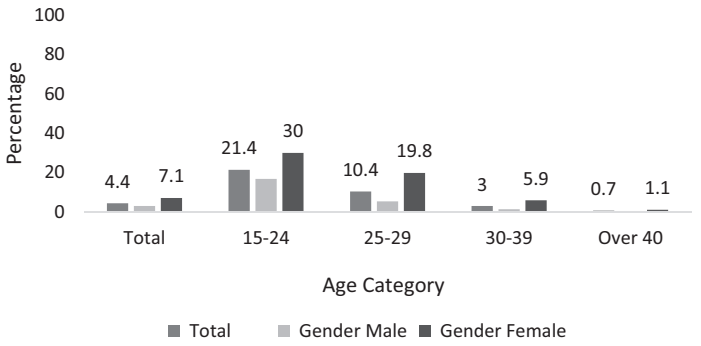
Source: Authors' calculations based on LFS 2018 data.

Figure 12.5 depicts the unemployment rate by different age categories. The highest unemployment rate was recorded for those aged 15-24 years, followed by those 25-29 years. The unemployment rate of females is higher than the male unemployment rate in all age categories. One of the main reasons for the higher female youth unemployment rate is female workers' preference to work closer to where they live.[14]

Youth unemployment in Sri Lanka has stagnated for years due to a lack of proper remedies and active labour market policies to absorb the unemployed youth into the labour market.[15] The situation is often aggravated because most job opportunities in the industrial and services sectors are in the Western Province. Also, most unemployed educated youth do not have adequate resources to invest in self-employment opportunities.[16] Despite being home to jobs in more desired industrial and services sectors, the youth unemployment rate in the Western Province was nearly 9.5%. The Uva Province recorded the highest youth unemployment rate in 2018 (23.1%). All the provinces except the Western Province showed double-digit unemployment rates (Figure 12.6). Such complexities, in turn, lead to multidimensional social youth unemployment issues.

Finding an appropriate match between student skills and labour market demand is crucial for the most effective and efficient use of human

Figure 12.5
Unemployment Rate by Age Category



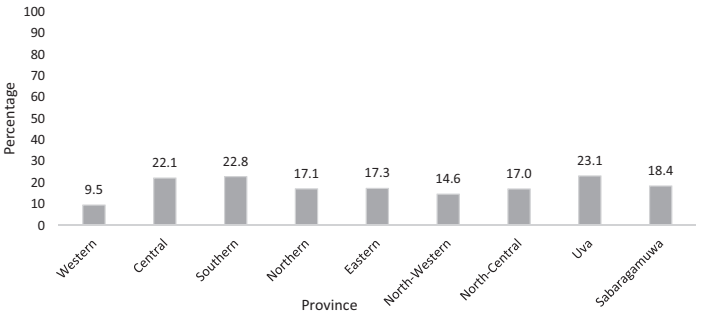
Source: Labour Force Survey Data, 2018, Department of Census and Statistics.

[14] Nanayakkara, A. G. W. (2004). *Employment and Unemployment in Sri Lanka: Trends, Issues and Options.* Battaramulla: Department of Census and Statistics.

[15] Damayanthi, N., Samarasinhe, W., Bandara, S., Hitihamu, N., & Perera, S. (2013). *Youth in Development: Sri Lanka.* Colombo: Hector Kobbekaduwa Agrarian Research and Training Institute.

[16] Nanayakkara, A. G. W. (2004). *Employment and Unemployment in Sri Lanka:* Trends, Issues and Options. Battaramulla: Department of Census and Statistics.

Figure 12.6
Youth Unemployment Rate by Province

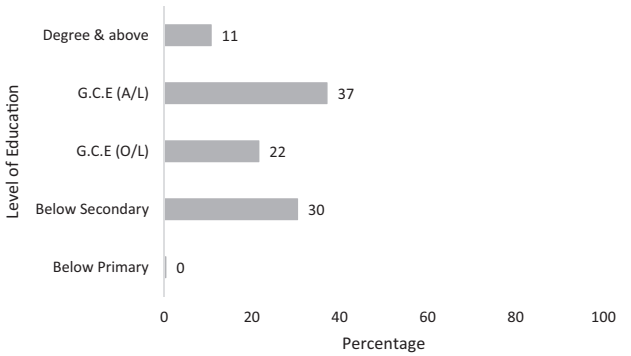


Source: Authors' calculations based on LFS 2018 data.

resources.[17] However, Sri Lanka still lags in implementing programmes and strategies to link skills and labour market demand. As a result, the country continues to suffer from elevated levels of educated youth unemployment. As shown in Figure 12.7, the highest percentage of unemployed youth is recorded amongst youth who have passed General Certificate of Education Advanced Level (GCE A-Levels), whilst a significant portion of youth who have passed General Certificate of Education Ordinary Level (GCE O-Levels) and below secondary level are unemployed. This highlights the importance of developing skill development programmes to cater to job opportunities available in the market.

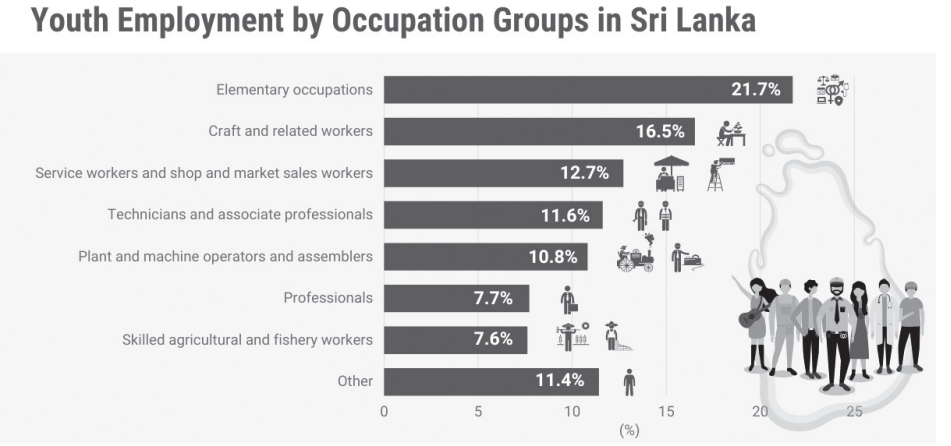
Figure 12.8 illustrates the main occupations the employed population and the youth employed group were involved in during 2018. Most were engaged in elementary occupations (sales and services elementary occupations, agricultural, fishery and related labourers, labourers in mining, construction, manufacturing and transport), accounting for 22.9% of the total employed population. Another 16.3% were skilled agricultural and fishery workers (market

Figure 12.7
Unemployed Youth by Education



Source: Authors' calculations based on LFS 2018 data.

[17] Asian Development Bank and the International Labour Organization. (2017). *Sri Lanka: Fostering Workforce Skills through Education:* Employment Diagnostic Study. Manila: Asian Development Bank.

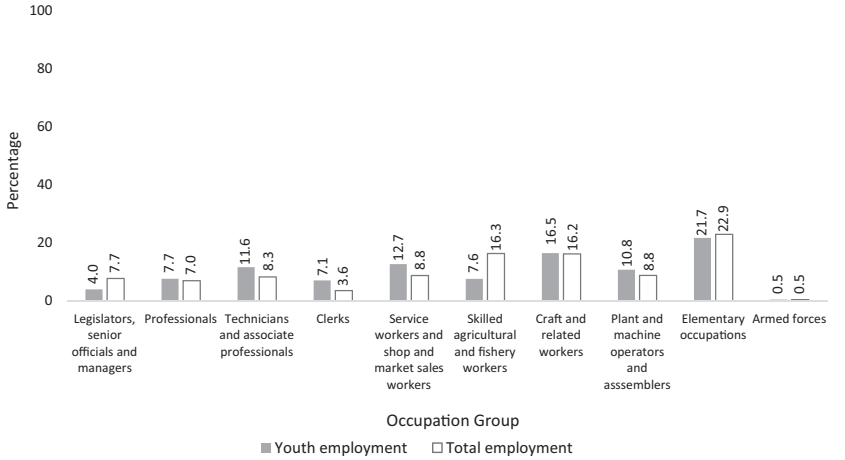


Source: Author's calculations based on Labour Force Survey 2018 data.

gardeners and crop growers, market-oriented animal producers, market-oriented crop and animal producers, etc.). However, in the youth category, the second most common occupation was the craft and related workers (16.5%). Nearly 8% were involved in the skilled agricultural and fishery sectors.

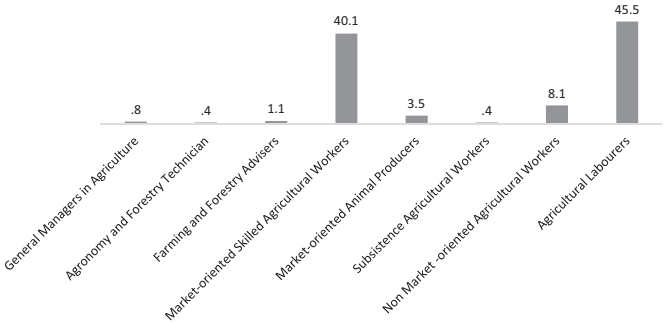
The composition of youth involvement in agriculture shows that the highest percentage (45%) work as labourers, such as tea pluckers, toddy tappers, cinnamon peelers, and farm labourers, as shown in Figure 12.9. The next largest share (40%) comprises market-oriented skilled agricultural workers such as market gardeners and crop growers, market-oriented animal producers, and market-oriented crop and animal producers (see infographic). The recent developments in the sector with new technology and innovation have created several opportunities in the skilled agriculture section in promoting agricultural entrepreneurship and agribusiness with much potential to attract unemployed youth into skilled agriculture with necessary policy measures.

Figure 12.8
Employment by Occupation Groups



Source: Authors' calculations based on LFS 2018 data.

Figure 12.9
Youth Employment in Agriculture in Sri Lanka



Source: Authors' calculations based on LFS 2018 data.

Youth employed in the plantation/estate sector is also a key segment in agriculture youth employment. Despite training and awareness programmes conducted to transfer unskilled labour into the skilled labour category to provide productive and decent working opportunities, the unemployment rate among such youth is higher than the national youth unemployment figure.[18] Youth in the plantation sector tend to be more satisfied with employment outside estates, driven by more financial benefits and social recognition. But, work location, job security and ethos/culture are the main factors that motivate them to find employment within the estate sector, mainly as tea pluckers and labourers.

12.3.2 Youth Employment in Agriculture

Sri Lanka's agriculture sector continues to play a vital role in the country's economy despite its share of GDP declining to less than 7% by 2021. The sector alone employed 27.3% of the total employed population in 2021. According to the LFS 2018 data, the estimated number of youth in agriculture is nearly 197,600. Even though no



Source: Author's calculations based on Labour Force Survey 2018 data.

[18] Jayasinghe-Mudalige, U., Edirisinghe, J., & Herath, K. (2020). *Study The Reasons on Why The Young Women and Men are Leaving The Plantation Sector and Find Out About Their Future Inspirations (Perspective of Plantation Youth).* Colombo: Berendina Employment Center (Guarantee) Limited.



current statistics are available on the number of youth engaged in agriculture activities in the country, youth involvement in agriculture has been on the wane. This is mainly because agricultural employment is not perceived to provide social recognition and protection, with limited use of technology and innovations in the sector. Lack of access to resources such as land, water, and capital and not having access to markets are other vital factors hindering youth from entering commercial agriculture.

Following the pandemic-related economic fallout in Sri Lanka, a shift to higher employment in agriculture is evident, with the total employed in agriculture rising from 2,170 Mn in 2020 to 2,213 Mn in 2021.

A brief primary perception survey was conducted online recently among nearly 160 undergraduates in the agriculture faculties of Sri Lankan universities to identify the challenges and opportunities for youth participation in agriculture. It showed that educated youth gravitate away from agriculture towards white-collar jobs. Uncertainty and high risks associated with agricultural activities, low profitability, and poor market accessibility were some other factors which influenced youth to move away from agriculture. The remoteness in job locations also discouraged youth, particularly graduates, from seeking jobs in the formal agricultural sector.[19] Thus, it is vital to identify strategies and policies to address these challenges.

Finding policy solutions is critical given recent developments. Following the pandemic-related economic fallout in Sri Lanka, as noted earlier, a shift to higher employment in agriculture is evident, with the total employed in agriculture rising from 2,170 Mn in 2020 to 2,213 Mn in 2021. Sri Lanka's current economic crisis can accelerate this situation as job growth in the service and industry sectors stagnate or contract in the immediate future.

[19] Food and Agriculture Organization. (2018). *Country Gender Assessment of Agriculture and the Rural Sector in Sri Lanka.* Rome: Food and Agriculture Organization.

Additionally, in the present context of rising food scarcity and food insecurity, both locally and globally, more policy attention on developing agriculture technology and innovations to raise productivity and profitability of agriculture will receive a renewed push. In these circumstances, promoting agricultural entrepreneurship among youth could be one key strategy for improving agri-technology and employment opportunities for young people during an economic crisis. For Sri Lanka, with nearly 80% of the rural population dependent on agriculture for food and employment,[20] renewed attention on the sector can generate multiple benefits if policies are appropriately designed.

The key is ensuring policy attention to expanding agriculture production is accompanied by productive employment. This means that efforts must be made to expand agribusinesses and agriculture entrepreneurship to open avenues for youth to engage in productive and decent work.

Efforts must be made to expand agribusinesses and agriculture entrepreneurship to open avenues for youth to engage in productive and decent work.

Policies to promote youth entrepreneurship are essential for a more productive and diversified agriculture base that will support such youth employment. In the Sri Lankan context, four key gaps have been identified related to youth employment and entrepreneurship.[21] These are (i) skills gap – the disparity between the skills demanded by employers and the skills that are available among current and potential employees; (ii) aspirational gap – the gap between the jobs that youth want (specifically, employment opportunities with high security, social status, better pay and benefits), and the ability of the labour market to provide such opportunities; (iii) information gap – the gap arising from the lack of information flow between employers and potential youth employees, regarding job prerequisites and employment opportunities; and (iv) structural gap – the gap between the available skills and experience of job seekers and those currently employed, and the changing needs of the economy.

Sri Lanka's policy trajectory so far has been somewhat ad hoc. In the early 1970s, the priority had been on engaging youth in agriculture by establishing youth farms in Hambantota, Kurunegala, and Badulla districts. More recently, Sri Lanka's national policy frameworks have identified the younger generation's disinterest in cultivating paddy or other crops as a significant

[20] Central Bank of Sri Lanka. (2019). *Annual Report 2019.* Colombo: Central Bank of Sri Lanka.

[21] Verité Research. (2020). *Improving Youth Employment & Entrepreneurship in Sri Lanka: Insights and Strategies.* Colombo: Verité Research.

issue faced by the agriculture sector. These policy frameworks envisaged ways and means of incentivising the youth to engage in agriculture by promoting youth agricultural entrepreneurship and providing tariff benefits and low-interest loans for budding agribusinesses.[22] Some key highlights of policies and programmes implemented in Sri Lanka to attract youth toward agriculture are set out in Box 12.1.

Box 12.1
Policies and Programmes Implemented in Sri Lanka to Provide Productive and Decent Work for Youth in Agriculture

Sri Lanka National Agriculture Policy, 2007 outlined a few strategies to increase youth involvement in agriculture. These included:

- Promote youth organisations for active participation of youth in agriculture and related ventures.
- Promote high-value crops and agro-based small and medium-scale industries for enhancing rural employment generation and youth involvement in the sector.
- Provide concessions and rewards to young entrepreneurs for promoting agriculture and related industries.

Overarching Agriculture Policy, 2021 identified strategies to increase youth participation in agriculture. These included:

- Adjustments in the supply-side and demand-side are required. On the supply-side, skill development through education and training is essential. On the demand side, adjustments are needed through changes in the regulatory and institutional environment to eradicate the obstacles that hinder women and youth from acquiring land and other assets.
- Increasing the participation of women and youth in a more competitive and commercially oriented agriculture sector is a priority.
- Mainstreaming youth issues in agriculture with appropriate interventions in skill development, increased ownership and access to assets, particularly land, strengthening organisations, enhancing partnerships, and increasing availability of proper technology.

E-agriculture Strategy, 2016

The strategy highlights the role that ICTs play in promoting innovation in the agricultural sector, focusing on smallholder farmers, particularly women and youth involved in the sector. This will provide access to the correct information at the right time, which gives them the capacity to make

[22] Sunday Observer. (2020). *National Policy Framework: Incentives for Youth to Take Up Agriculture.* Retrieved May 10, 2022, from Sunday Observer: https://www.sundayobserver.lk/2020/01/09/business/national-policy-framework-incentives-youth-take-agriculture

informed decisions that would improve their livelihoods, make agribusiness more attractive and play a significant role in ensuring food security.

Targeted training

- *National Youth Services Council (NYSC) Operates 54 Training Centres in 22 Districts.* The training centres deliver vocational training for the youth, including agriculture-related vocational training. Out of the 54 training centres, 11 centres are fully dedicated to agriculture.

- *'Suhuru Gewaththa'- Smart Home Garden Programme Conducted by the NYSC* The programme includes the cultivation of crops, agro products collection businesses, and agro-based productions. Here, 35,000 youth got registered for the novel exercise. The NYSC has conducted several training programmes focusing on value-added agriculture. One of the training centres in Ulapane had conducted training programmes on value addition in mushroom cultivation.

- *NYSC is Gradually Stepping into Agro Technology Related Courses While Updating the Trainer's Knowledge and Skills*
  Greenhouse farming has been implemented in one of the youth centres in Heyyanthuduwa.A youth training centre in Kantale has introduced drip irrigation training for nearly a group of 20 youths who have successfully irrigated pineapple cultivation.

- *Sri Lanka Technological Campus Facilitates Training and Provides Support to the Youth Agri-entrepreneurs*
  The institute offers six months of in-plant training in which the students are sent to agriculture-related government or private workplaces, allowing them to gain related working experience. Several webinar/ workshop sessions are organised with small-scale to large-scale entrepreneurs enabling the students to get first-hand information on entrepreneurship. An annual competition is organised to recognise and appreciate students' novel ideas.

- *Private Sector Involvement for Youth Development - 'Yauwanabhimana' Programme* 'Yauwanabhimana' programme has given training and exposure to various industries, including agriculture. The programme supports improving skills and developing the ability of youth to be successful in a professional environment.

Sources: National Agriculture Policy, Ministry of Agriculture Development and Agrarian Service. (2007). Ministry of Agriculture. (2019). Overarching Agriculture Policy (Draft) 2019. Colombo: Ministry of Agriculture.
Key informant interviews with the selected stakeholders.

Successive governments have taken several steps to enhance the potential contribution of Sri Lankan youth in agriculture by developing their knowledge and skills through education and training facilities and skills development opportunities. Still, many limitations remain in the existing education system and training programmes. These primarily relate to programme quality and achieving the intended objectives successfully. Poor selection of target groups for various programmes has been identified as one of the major weaknesses.

In a primary perception survey, most respondents highlighted the importance of smart farming techniques, proper introduction of agribusiness, entrepreneurship studies, involvement of private sector agribusiness, etc., to enhance the quality of training provided to youth to improve their participation in agriculture. Some key informant interviews (KIIs) conducted with policymakers in the field pointed to the importance of introducing new technology, particularly to disseminate climatic information. In addition, other suggestions were to provide virtual marketing platforms; improve existing technologies; enhance public-private partnerships (PPPs) in agribusiness fields; develop processing, marketing, and research skills of private agro-entrepreneurs via short-term university programmes, etc.

12.4 Policy Recommendations

Sri Lanka's youth face significant economic challenges, especially high unemployment. Such challenges are likely to worsen in the present context of a severe economic downturn. The economic distress is likely to hamper efforts toward the productive employment and decent work agenda. The transition of young people from schools and training institutions into the labour market is a phase marking a critical period in a person's life cycle. Young people are often trained for skills, but such training is not often matched by labour market demands. This leaves many youth trapped in unemployment. While Sri Lanka attempts to provide various solutions to address youth unemployment, encouraging youth participation in agriculture requires attention given the expected downturn in the industry and services sectors.

Towards this end, it is crucial to identify some strategies to improve productive and decent employment in agricultural activities, especially for Sri Lanka's youth. In particular, a key concern is identifying methods to attract unemployed youth into productive and decent work in the sector. Even though several policy measures have been implemented in the past, some gaps continue to hinder attempts to attract more youth to agriculture.

Improve existing technology and enhance technology interventions in farming, agribusiness activities and agri-entrepreneurship: At present, key priorities are to improve and enhance the existing technology available in farming and agribusiness. As a part of this exercise, attempts should also focus on taking technology to rural areas and beyond grassroots levels through existing agriculture extension services and the national youth services council (NYSC) technology training centres. Digital transformation in agri-farming and agribusiness activities is key to attracting youth as they are more adaptive to new technology. Training and assistance in using such new technology can be implemented through the NYSC training centres. Currently, 11 out of 54 NYSC training centres are dedicated to disseminating agricultural technological training. However, increased private sector involvement and the introduction of digital

applications to obtain data and information on marketing, weather patterns, crop cultivation, etc., need to be better integrated. Smart applications on agriculture advisory services such as 'Govi Mithura' are already in place, but PPPs in expanding and upgrading technology such technology is desired.

Improve collaboration between government and industry sectors: Modernising and mechanising the farming and agribusiness sectors is crucial to creating more productive employment opportunities. Effective coordination between key actors like government, industry and the education system is critical to changing youth perception of agriculture. Such collaboration plays a major role in disseminating information on opportunities available for youth in the agriculture sector, particularly in the agribusiness and agri-entrepreneurial sectors. The existing education system must also be changed to provide the latest skills for young farmers and agri-entrepreneurs. Universities, higher education institutes, NYSC and schools offering relevant study courses and training must have private sector inputs. Some companies, such as CIC and Hayleys, are already offering training in areas relevant to the agriculture industry, but such collaborative efforts need to be expanded. Options to provide financial support to youth – such as concessionary loans, scholarship programmes, and other incentive schemes – from the government, private sector and NGOs to engage in skills development have to be a part of this. Further, these programmes need to be supported by proper monitoring and evaluation.

Promote awareness of opportunities available in the agriculture sector: Much attention is needed where the relevant government and private sector institutions conduct awareness programmes on the availability of productive and decent work environments in the agriculture sector, especially to change the mindset of the youth. Awareness programmes could be conducted through print and digital media, especially social media, as an effective tool to target the younger generation. As a start, the government and the private sectors could launch campaigns addressing work ethics, perceptions, attitudes and aspirations about manual, technical and entrepreneurial work available in the agriculture sector.

In addition, the industry sector can take steps to introduce young role models – successful young farmers and agri-entrepreneurs to youth groups – to enable them to share their experiences with others. Such success stories could be shared amongst the youth networks using social media, as already done in other countries such as Kenya, to create and publicise the image of an agri-entrepreneur as a person with vast knowledge and technologically up-to-date. These efforts help to inspire youth, spur entrepreneurial instincts, and create self-esteem and social recognition among even the unskilled youth labourers in the agriculture sector. In Sri Lanka, similar initiatives can be executed with the support of the Information Communication Technology Agency (ICTA) and the National Innovation Agency (NIA), as already developed communications platforms are in place.

Further, expanding and introducing training programmes especially focused on unskilled youth who are involved as agriculture labourers can generate awareness of recent technological and mechanisation developments in the sector. Already such training is being conducted with the support of the private sector, such as the Rainforest Alliance, Fairtrade, Ethical Tea Partnerships etc. Still, there is much scope to expand and monitor their effectiveness.

Bridge the skills gaps: Matching youth skills to labour market demand in the agriculture sector can often be time-consuming and costly. As an immediate measure, the most practical and suitable way is to identify short, medium and long-term strategies to fill the skills gap. In the short term, agriculture industry-specific courses which will enable youth to reintegrate into the workforce by bridging their skills opening with their aspirations should be prioritised. Private sector input is necessary here to identify and develop the relevant programmes. Such youth assessment needs will also be helpful for decision-makers to determine their qualifications and preferences that can, in turn, be fed into the preparation of training courses and modules to meet industry requirements. Training qualifications should be equivalent to National Vocational Qualifications (NVQ) so that long-term career aspirations can be better met to provide youth with productive and decent work.

13. Energy Sector Challenges and a Sustainable Electricity Industry

13.1 Introduction

The global energy sector is facing unprecedented levels of uncertainty today. The energy demand began to rebound in 2021 as countries started to recover from the coronavirus (COVID-19) induced economic downturn. The rebound in demand alongside supply-side bottlenecks saw energy prices begin to rise, notably concerning natural gas and electricity. The Russian invasion of Ukraine in early 2022 had an immediate knock-on impact on energy prices globally. The sharp price spikes have dealt a severe blow to energy import-dependent economies, especially those in the developing world that were already struggling to cope with the economic fallout of the pandemic.

For a country like Sri Lanka which was already amid a severe foreign exchange crisis, the spike in international oil prices generated severe distress leading to an acute shortage of fuel that necessitated prolonged power outages. The combined impacts in disruptions to economic activity will exert significant contractionary pressure on the country's economic output in 2022. Amidst these developments, the energy transition to low-carbon alternatives, both globally and locally, takes centre stage, raising concerns on whether the current disruption will hasten the process or see a lowering of ambitions as countries grapple with challenges on implementation.

The Sustainable Development Goals (SDGs) provide a framework for global action on this front. Under Goal 7, the focus is on "ensuring universal access to affordable, reliable, sustainable, and modern energy for all" by 2030, increasing the share of renewable energy (RE) in the global energy mix and doubling the global rate of improvement in energy efficiency as key targets. Indeed, SDG 7 complements the COP 21 Paris Agreement that was arrived at in 2015 with strong positive interlinkages on climate action.

Sri Lanka ratified COP 21 from the inception and set itself a target to reduce 30% of greenhouse gas (GHG) emissions from the energy sector by 2030 in comparison to the 2010 base year value. Nationally determined contributions (NDCs) have been formed to achieve the objectives of the COP 21 Paris Agreement, consisting of five NDCs.[1] These policy developments are aligned with SDG 7. Sri Lanka's National Energy Policy 2019 aims "to ensure energy security through supplies that are cleaner, secure, economical and reliable, to provide convenient, affordable energy services to support socially equitable development of Sri Lanka".[2] The 10 pillars on which the energy policy is built are based on the balance between security, equity and sustainability. The policy introduced guidelines to fulfil 70% of the national electricity supply from

[1] Ministry of Environment. (2021). *Nationally Determined Contributions.* Battaramulla: Ministry of Environment.

[2] Government of Sri Lanka. (2019). *National Energy Policy and Strategies of Sri Lanka.* Colombo: Government of Sri Lanka.

RE sources by 2030. This coincides with the NDCs for the RE sector (NDC1) and to implement demand-side management measures (NDC2) to increase energy efficiency, which aims to reduce specific energy use across all end-user levels by 15% to that of the 2015 value, by 2030. Further to this policy development, the government's most recent policy framework on 'Vistas of Prosperity and Splendour' aims at a rapid increase in the contribution of RE by 2030 and to reach 80% of the requirement from the hydro and RE sectors.

With these proposed ambitious global and local policy movements in the energy sector, it is essential to understand the present position and challenges that Sri Lanka faces in sustaining the goals mentioned above, in particular for providing more cleaner, modern and convenient forms of energy for people and the economy in the current economic context. Hence, this chapter focuses on Sri Lanka's energy sector, with particular attention to the electricity sector, to identify the challenges of transforming toward sustainable energy.

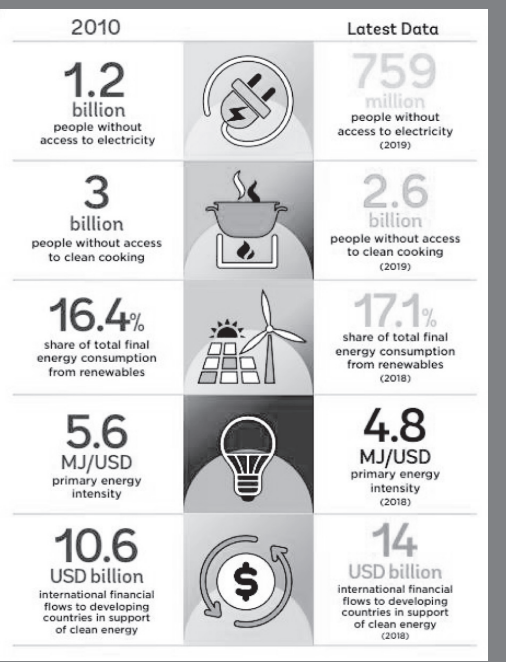
13.2 SDGs and Overview of Sri Lanka's Energy Sector

The energy sector is strongly related to the economic growth of a country, showing a positive relationship between energy consumption and gross domestic product (GDP). Economies

Box 13.1
Primary Indicators of Global Progress (2010-2019) Towards the SDG 7 Targets

SDG 7 is expected to be achieved through targets on:

7.1 Universal access to electricity and clean cooking
7.2 Substantially increasing in RE
7.3 Doubling progress on energy efficiency
7A Increasing global collaboration in support of clean and renewable energy
7B Expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries



Source: International Energy Agency, International Renewable Energy Agency, United Nations Statistics Division, World Bank, and World Health Organization. (2021). *Tracking SDG 7: The Energy Progress Report*. Washington, D.C.: World Bank.

began to grow faster with the invention of coal in the 19th century, which substituted human labour and enhanced productivity in the manufacturing sector. In the 20th century, the world economy depended heavily on fossil fuels due to their versatility. However, rising global population and per capita consumption patterns show that the existing non-renewable resources will deplete within the next century.

Meanwhile, the industrial revolution came with a worldwide environmental cost which led to global warming and climate change issues the world is experiencing today. Hence, the use of RE sources is globally promoted to reduce the emission level from the energy sector. The COP 21 Paris Agreement and the SDG Goal 7 are global policy developments towards emission reductions.

The most used global energy sources are fossil fuels, so the energy sector contributes to GHG emissions the most. In 2019, Sri Lanka's contribution to global GHG emissions was 0.08% (27.7 metric tonnes (MT) of carbon dioxide (CO_2)). The country's transport sector (10 MT CO_2) and the electricity sector (10 MT CO_2) were the major contributors to GHG emissions.[3]

Per capita, CO_2 emission for Sri Lanka is around 1 MT, while it is about 14 MT for the United States (US), 8.3 MT for Singapore, and 7.1 MT for China, with a world average of 4 MT in 2019. However, the trend is increasing for Sri Lanka, China and most developing countries, while it is declining for countries such as the US and Singapore. Statistics reveal that CO_2 per unit of GDP is 0.2 kilogram (Kg) in Sri Lanka, while the world average is 0.4 Kg, and higher values are reported in India (0.9 Kg), China (0.7 Kg), and Russia (1.1 Kg).

Clean energy for cooking is another important milestone in the fight against pollution. While electricity is considered the most acceptable modern energy and Sri Lanka is among the countries with near-universal access to electricity as of 2018,[4] clean cooking remains an issue. Unprocessed biomass, charcoal, coal, and kerosene are polluting fuels, while gaseous fuels and electricity are considered clean cooking fuels. Here, women are the most affected by indoor air pollution.[5] In 2019, nearly 12 million (Mn) people in Sri Lanka depended on biomass for cooking (57.7% of households). The rest used liquefied petroleum (LP) gas (39.9%), and nearly 2.4% used kerosene or other sources.[6] However, when these figures are compared to 2016 data, households using LP gas have escalated by almost 11%, while those using biomass fell by the same percentage. This shift is positive in terms of the clean and modern energy objective of SDG 7 and minimising the health impact on women.

However, such trends have also amplified Sri Lanka's energy import dependency. In urban areas, nearly 76.9% of households use LP gas. The National Energy Policy of 2019 has considered promoting the use of biomass while improving cooking stoves to minimise the inconvenience. This strategy is proposed to minimise petroleum use and enhance self-reliance. The current economic

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3 International Energy Agency. (2019). *Data and Statistics.* Retrieved May 10, 2022, from International Energy Agency: https://www.iea.org/data-and-statistics/data-browser/?country=SRILANKA&fuel=CO2%20emissions&indicator=CO2BySector

4 International Energy Agency. (2022). *Country Statistics, Sri Lanka.* Retrieved May 10, 2022, from International Energy Agency: https://www.iea.org/countries/sri-lanka

5 Asian Development Bank. (2016). *Sri Lanka, Gender Equality Diagnostic of Selected Sectors.* Manila: Asian Development Bank.

6 Department of Census and Statistics. (2019). *Household Income and Expenditure Survey 2019.* Department of Census and Statistics.

Providing access to modern energy services – a key concern in SDG Goal 7 – remains a high priority for Sri Lanka.

crisis, in particular the foreign currency crisis in Sri Lanka, has created limitations in affording adequate amounts of LP gas from the world market. Hence, households in urban areas are severely affected by cooking energy shortages. In such circumstances, government policy is likely to prioritise urban households over rural households in distributing limited supply volumes, thereby pushing many households to use biomass as cooking energy. Providing access to modern energy services – a key concern in SDG Goal 7 – remains a high priority for Sri Lanka.

13.2.1 Energy Supply

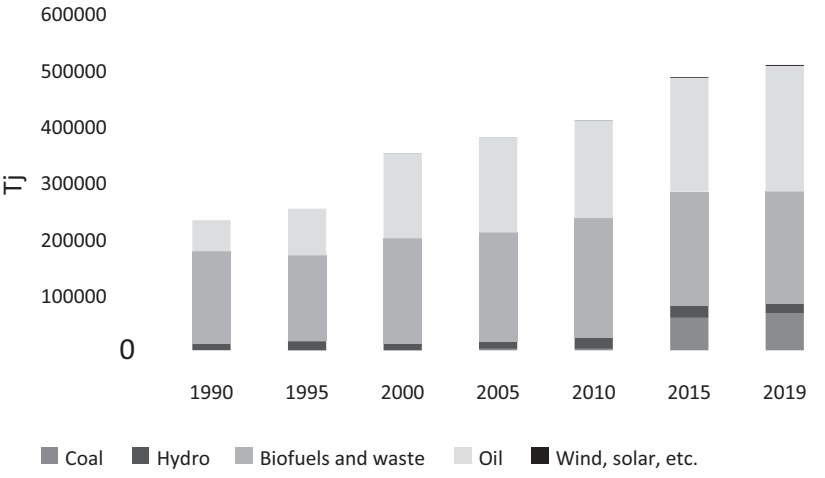
The energy mix shows the primary energy sources used by a country to supply its energy needs. Sri Lanka's energy mix consists of petroleum, biomass, coal, hydropower, and other renewable energy (ORE), such as wind, solar, biomass, and mini hydro. The primary energy sources are natural resources used for energy generation. The total energy supply in 2019 was 509.6 petajoules (PJ) or 509,600 terajoules (TJ).[7] Petroleum provided 44% of the energy supply while biomass provided 33%, coal accounted for 12%, main hydro for 7%, and the other 4% was supplied by ORE.

The energy mix varies from time to time depending on the availability, technology and prices. Figure 13.1 illustrates the current energy mix of Sri Lanka and its evolution over time. The energy supply has gradually improved, with an average annual growth rate of 4.9% from 2009 to 2019. This is mainly through the increased supply of petroleum and the addition of coal to the energy mix. According to available data, a slight growth is evident in the use of ORE, from 0.06% in 2010 to 0.32% in 2019. It shows a clear movement towards imported energy sources to meet the soaring local energy needs, while the progress towards ORE sources is sluggish.

According to the 2019 statistics, nearly 56% of the primary energy sources are imported. Sri Lanka spent United States Dollars (USD) 4,133 Mn (17% of the import bill) on imports of crude oil, refined products, coal, and LP gas during the same year. Import volumes kept increasing over time except for crude oil, which moved around a maximum of 2,000 MT, which can be attributed to the stagnant local refinery capacity. The import value of energy sources fluctuates parallel to the global oil price and further becomes costly due to the depreciation of the Sri Lankan Rupee (LKR). Hence, growing import dependence has repercussions on local energy prices, the trade balance, the competitiveness of export products, affordability of sourcing energy from the global oil market, and availability owing to supply disruptions attributable to geopolitical uncertainties.

[7] Sri Lanka Sustainable Energy Authority. (2019). *Sri Lanka Energy Balance 2019: An Analysis of Energy Sector Performance*. Colombo: Sri Lanka Sustainable Energy Authority.

Figure 13.1
Growth in Local Energy Supply (1990 to 2019)



Source: International Energy Agency. (2021). *World Energy Statistics and Balances.* Retrieved May 10, 2022, from International Energy Agency: https://www.iea.org/data-and-statistics/data-product/world-energy-statistics-and-balances

The current energy crisis in Sri Lanka is partly attributed to the high import dependence of the energy sector. Hence, during the prevailing economic crisis, the country cannot provide an uninterrupted supply which heavily affects the people's economic activities and daily life. This is aggravated by rising fuel prices in the international market owing to sudden shocks such as the Russian invasion of Ukraine. As such, the 2019 National Energy Policy has set a target of reducing import dependency to a level below 50% as a strategy to safeguard against such world market oil price shocks and geopolitical uncertainties.

These primary energy sources are used in their present form or converted to another form of energy. Petroleum products are used for electricity generation and transportation. Biomass contributes a more significant portion of cooking energy,[8] while a certain amount is used for thermal power generation in industries. Hydro, coal and ORE are used for electricity generation.

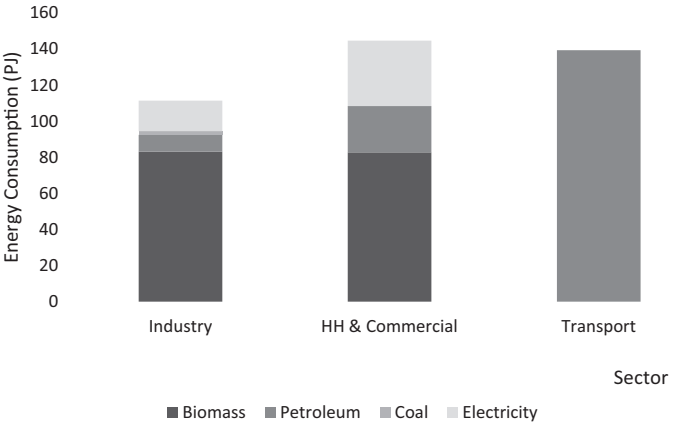
13.2.2 Energy Consumption

Energy is utilised by the transport sector, industry, and households and commercial and other sectors (Figure 13.2). The largest share was consumed by the households, commercial and other sectors which accounted for 36.6% of the energy supply in 2019. Transport and industry sectors accounted for 35.2% and 28.2% of the supply, respectively. Over the years, the consumption volume has increased in all three sectors while the share of the transport sector has exceeded others. The overall growth in energy consumption by the above sectors was around 8% from 2010 to 2019.

Households, commercial and other sectors mainly consume biomass (57%) to meet

[8] Sri Lanka Sustainable Energy Authority. (2019). *Sri Lanka Energy Balance 2019: An Analysis of Energy Sector Performance*. Colombo: Sri Lanka Sustainable Energy Authority.

Figure 13.2
Energy Consumption by Sectors



Source: Sri Lanka Sustainable Energy Authority. (2019). *Sri Lanka Energy Balance 2019.* Colombo: Sri Lanka Sustainable Energy Authority.

their energy needs while electricity provides 25% and petroleum provides 18% of the energy requirement. Biomass (74%) followed by electricity (15%) are the main sources of energy in the industry sector. The transport sector depends almost totally on petroleum. To lower such dependency, initiatives have been taken to encourage electric vehicle imports since 2014. Still, electric vehicles accounted for a mere 0.03% of the total vehicle fleet by 2019. More recently, a Cabinet paper was submitted in January 2022 to prioritise such vehicles when vehicle imports resume. However, the effectiveness of these policy measures depends on the energy sources deployed to generate electricity. At present, it is mainly through coal and petroleum.

Per Capita Energy Consumption

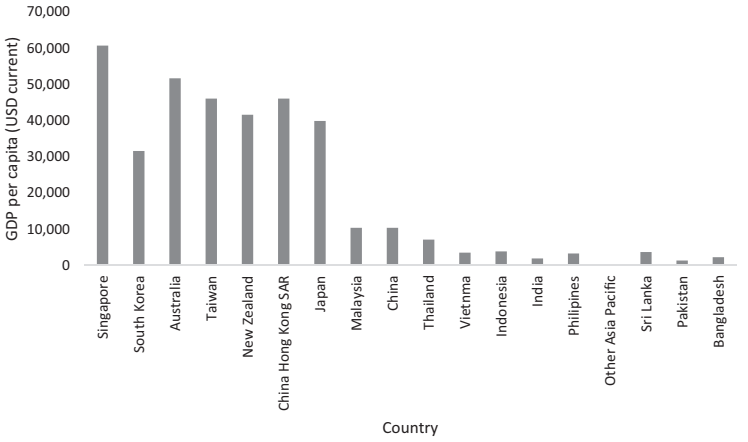
Global energy consumption from 2009-2019 recorded an annual growth rate of 1.9%.[9] Sri Lanka's yearly growth rate was 4.9% during the same period. A sharp drop in worldwide energy consumption was observed in 2020 due to COVID-19-related mobility restrictions. Per capita, energy consumption in Sri Lanka was 16.8 gigajoules (GJ), while the world average was 75.4 GJ in 2019. It ranged from 6.2 GJ to 594.2 GJ across countries. High-income levels show the affordability of more goods and services. Even amongst Asia-Pacific countries, energy per capita consumption shows a wide variation (see infographic).

Energy Intensity

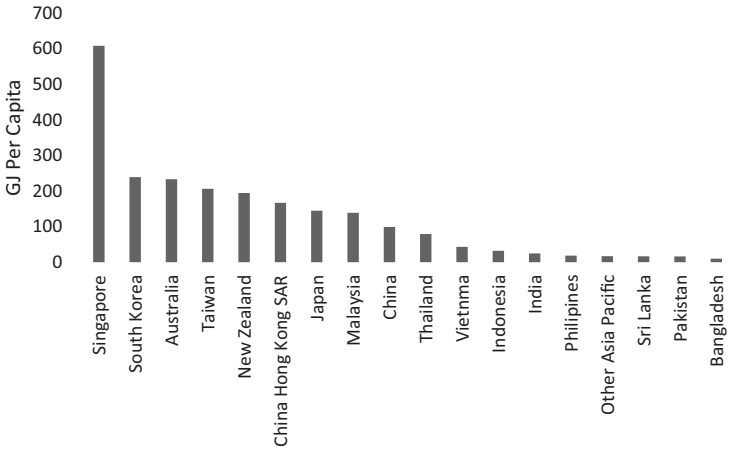
Energy intensity is a measure of energy efficiency (or mirroring inefficiency) in an economy. The ratio of energy use (in joules) per unit of GDP in a given year is considered a measure of energy intensity.[10] However, energy intensity and economic growth are positively related in economies where high energy intensity economies are at a higher level of economic development compared to those of other countries. However, in the current global energy policy direction and energy resource

[9] BP Statistical Review of World Energy. (2021). *Statistical Review of World Energy, 70th edition.* London: BP PLC.

[10] Martinez, D., Ebenhack, B. W., & Wagner, T. (2019). *Energy Efficiency: Concepts and Calculations.* Elsevier. Retrieved April 20, 2022, from: Elsevier: https://www.sciencedirect.com/topics/engineering/energy-intensity



Source: The World Bank, (2020). World Bank national accounts data, and OECD National Accounts data files: GDP per capita (current US$). World Bank Group. https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?end=2020&most_recent_year_desc=true&start=2006



Source: BP Statistical Review of World Energy. (2021). *Statistical Review of World Energy, 70th edition.* London: BP PLC.

context (global and local), it is appealing for developing countries to aim for sustainable development with a low emission growth path.

Reaching a low energy intensity is a goal of SDG 7. The global movement is towards low energy-intensive economic sectors to lower their high energy intensity levels. The European Union (EU) and the US have cut down their energy intensities (by 2% per year) from 2000 to 2019 mainly with energy efficiency improvements in the power sector, and to a lesser degree by shifting to less energy-intensive industries and increasing the share of services in GDP.[11] Overall, global energy intensity has declined from 0.177 Kg oil equivalent per USD at a constant exchange rate, price and purchasing power parities of the year 2015 (kilogram of oil equivalent (koe)/USD 15)

[11] Enerdata. (2022). *World Energy and Climate Statistics Yearbook 2021.* Retrieved April 20, 2022, from Enerdata: https://yearbook.enerdata.net/total-energy/world-energy-intensity-gdp-data.html

in 1990 to 0.114 koe/USD 15 by 2020.[12] It varies across countries based on energy efficiency achievements and economic structures. Sri Lanka indicated a very low energy intensity (0.011 koe/USD 15) in 2019.

Around 60% of the GDP contribution in Sri Lanka (pre-pandemic era) is from the services sector. Thus, the energy used in producing a unit of GDP is comparatively very low. The National Energy Policy of 2019 has considered a low energy-intensive economic path in view of the significance of the services sector in the economy and energy availability. A low energy-dependent economy is more resilient to global energy crises, in particular when import dependence is high in the energy mix. If Sri Lanka needs to divert to a manufacturing economy, rapid infrastructure developments for the energy sector are crucial.

If Sri Lanka needs to divert to a manufacturing economy, rapid infrastructure developments for the energy sector are crucial.

Overall, the World Energy Council (WEC) defines energy sustainability as consisting of three dimensions; energy security, energy equity and environmental sustainability.[13] An index was developed using these three aspects – the World Energy Trilemma Index – as a measure of energy sustainability in each country. Energy security considers the ability of a country to meet the growing energy demand while responding to supply shocks to minimise disruptions to economic activities and consumers. It covers the effectiveness of managing both external and local energy sources and how reliable and resilient are the energy sources. Energy equity indicates the ability of a country to provide reliable access to affordable energy. Environment sustainability covers the aspects of an energy system in avoiding environmental damage and climate change mitigation – efficiency of energy use, generation, transmission and distribution, decarbonisation, pollution from carbon dioxide, methane and particulate matter. Based on the above criteria, Sri Lanka was ranked 60th globally with a trilemma score of 60.1. Among the three dimensions, Sri Lanka is strong in environmental sustainability attributed to the energy intensity improvements, CO_2 intensity and low CO_2 per capita emissions. Energy equity has improved due to the provision of 100% access to electricity. However, continuous import dependence on energy shows moderate performance over energy security.

13.3 Sri Lanka's Electricity Sector

Electricity is considered the most acceptable modern and cleaner energy in the world. Hence, electrifying the economy is a key component in achieving net-zero emissions using clean energy sources (RE, liquefied natural gas (LNG),

[12] *Enerdata. (2022). World Energy and Climate Statistics Yearbook 2021. Retrieved April 20, 2022, from Enerdata: https://yearbook.enerdata.net/total-energy/world-energy-intensity-gdp-data.html*

[13] World Energy Council, (2021). *World Energy Trilemma Index.* Retrieved April 20, 2022, from World Energy Council: https://www.worldenergy.org/publications/entry/world-energy-trilemma-index-2021

hydrogen, etc.). It facilitates the use of clean energy for the transport sector too. Therefore, this section examines the current status and challenges in Sri Lanka's electricity sector.

13.3.1 Electricity Generation

Nearly 12.5% of Sri Lanka's energy supply is electricity.[14] Hydropower, petroleum, coal, and ORE are the sources of the electricity generation mix in Sri Lanka. In 2019, the gross generation of electricity from the above sources was 15,992 gigawatt-hours (GWh), while in 2020, it was 15,714 GWh (-1.3%) due to COVID-19 pandemic-related lockdowns and restrictions. The installed capacity of various sources was 4,217 megawatts (MW) (Table 13.1).

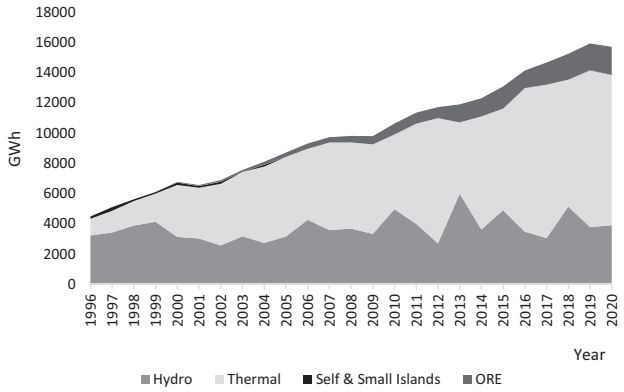
Nearly 65% of the electricity is generated from thermal power while another 30% is from hydropower (including mini hydro) and the other 5% is from OREs. The share of thermal oil energy in the generation mix has substantially increased since 2000 due to rising electricity demand and

Table 13.1
Electricity Generation and Installed Capacity by Source in 2019

Source	Generation GWh	As a %	Installed Capacity (MW)	As a %
Major hydro	3,784	23.80%	1,399	33.20%
Mini hydro	1,011	6.30%	410	9.70%
Thermal (oil)	5,016	31.50%	1,282	30.40%
Thermal (coal)	5,361	33.70%	900	21.30%
ORE	750	4.70%	226	5.40%
Total	15,922		4,217	

Source: Ceylon Electricity Board. (2020). *Statistical Digest.* Colombo: Ceylon Electricity Board.

Figure 13.3
Electricity Generation Mix



Source: Ceylon Electricity Board. (2022). *Long-term Generation Expansion Plan* 2022-2041. Colombo: Ceylon Electricity Board.

[14] Ceylon Electricity Board. (2020). *Statistical Digest.* Colombo: Ceylon Electricity Board. Retrieved April 20, 2022, from Ceylon Electricity Board: https://ceb.lk/publication_media/other-publications/102/en

delays in implementing major power projects (Figure 13.3). Further, it fluctuates depending on the hydrological conditions in any given year.

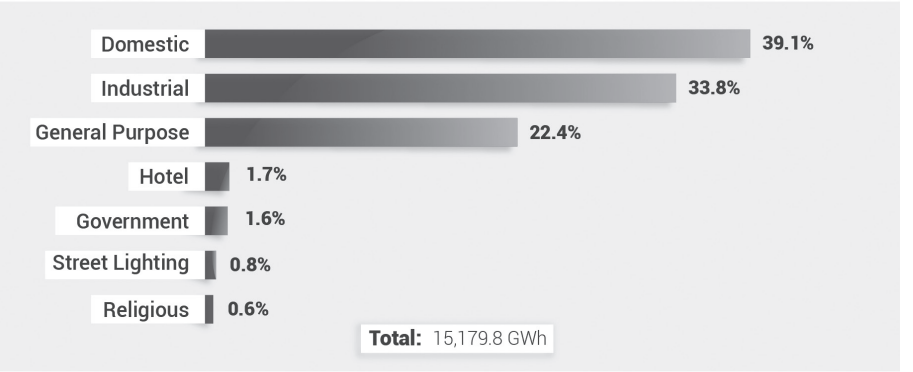
In 2019, of 282 power plants in the country, the Ceylon Electricity Board (CEB) owned 28 power plants, while the rest (254) were independent power producers (IPPs). Since 1996, IPPs have been allowed to operate mainly to develop renewable power plants. As a result, OREs were added to the generation mix. After that, 206 mini hydro plants, 15 wind plants, 27 solar and biomass plants, and six thermal plants were owned by the IPPs in 2019. The CEB possessed 17 hydro plants, 10 thermal oil plants, and one coal plant by 2019. However, by 2020, the CEB added one wind plant (15 MW), while 23 ORE plants were added by the IPPs (33 MW). Nearly 70% of installed capacity is from CEB-owned power plants, while the rest is from IPPs. Similarly, almost 71% of the generation ownership was from the CEB, and the rest were from IPPs in 2019.

Rainfall is a determinant in hydropower generation. According to the bimodal rainfall pattern in the country, water levels in hydropower reservoir catchment areas deplete from December to April. When the annual rainfall has been relatively low, Sri Lanka has experienced power cuts due to the low capacity of hydropower generation. Under these conditions, electricity costs also rise due to generating more thermal oil power. Irrigation is the priority of multipurpose hydropower projects. Hence, power generation capacity from multipurpose reservoirs depends on seasonal cultivation patterns and irrigation requirements.

13.3.2 Electricity Consumption

Electricity is sold by the CEB and Lanka Electricity Company (LECO). Nearly 11.5% of the electricity sales are through LECO which is established for electricity distribution. Consumer categories of electricity consumption are based on different tariff tiers and the electricity consumption varies by different consumer groups (see infographic). In 2021, domestic consumption and industrial consumption accounted for 39% and nearly 34%, respectively. The hotel sector consumed around 1.7% of the sales. Street lighting and illumination for religious use are comparatively very low. Over the years, demand from major sectors has gradually increased. Per capita,

Electricity Consumption in Sri Lanka
by Different Categories (2021)

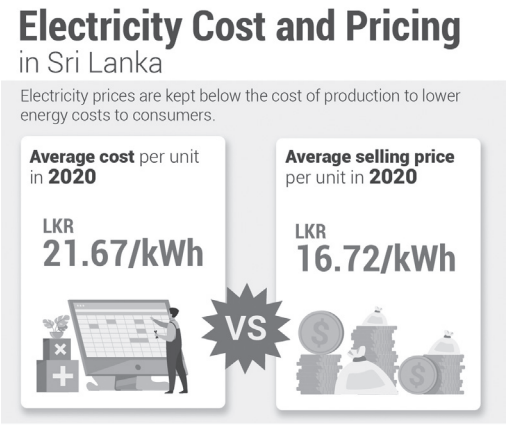


Source: Ceylon Electricity Board, (2021). Statistical Digest.

electricity consumption has increased from 289 kilowatt-hours (kWh) in 2001 to 670 kWh in 2019 and 652 kWh in 2020.

13.3.3 Cost and Pricing

Low electricity costs substantially contribute to the cost-effective production of goods and services. Indeed, it is crucial to have a low cost of production in today's increasingly competitive global export market. Currently, Sri Lanka's electricity prices are kept below the cost of production to help lower energy costs to consumers. For instance, the average cost per unit of electricity in 2019 was LKR 24.12/kWh, and the average selling price was LKR 16.63/kWh (see infographic). These prices vary across sectors based on the level of subsidy offered, as detailed in Table 13.2, and the monthly consumption level. The CEB, however, encounters continuous losses over time due to the prevailing pricing mechanism. This is despite the country's energy policies proposing to have cost-reflective pricing mechanisms in place to ensure the financial viability of the CEB and to minimise unnecessary usage resulting in electricity wastage.



Source: Ceylon Electricity Board, (2020). Statistical Digest.

The average cost of a unit of electricity depends on the hydrological conditions and the global fuel price. Electricity generation from thermal oil is more expensive compared to other sources. Among thermal electricity, coal remained the cheapest (LKR 7.95/kWh) at prevailing market prices in 2019. However, the efficiency of existing thermal plants, the type of fuel used, and the cost of a unit of electricity are highly variable (LKR 18.14/kWh at Barge Furnace Oil Plant to LKR 46.07/kWh at the Kelanitissa Power Station (small

Table 13.2
Electricity Pricing Across the Sectors

	Average Price (LKR/kWh)			
Sector	2019	Unit Sales %	2020	Unit Sales %
Domestic	14.13	27.8	14.86	35.6
Religious	7.31	0.3	7.22	0.6
General purpose	23.94	30.4	23.93	19.9
Hotel	17.71	2.0	18.10	1.4
Industrial	14.72	26.6	14.84	29.1
Government	18.18	1.5	18.07	1.5
LECO	16.46	11.4	16.03	11.2
Average cost	24.12		21.21	
Average price	16.33		16.72	

Source: Ceylon Electricity Board. (2020). *Statistical Digest.* Colombo: Ceylon Electricity Board.

GT Lanka Auto Diesel plant). The average cost per thermal power unit, including coal, was LKR 12.25/kWh in 2019.

Electricity demand fluctuates during the day depending on economic and household activities. Therefore, the electricity demand periods of a day are classified as the night peak, day peak and off-peak. The cost of electricity varies at these peaks due to the generation mix. The peak demand has been rising at an average annual rate of 3.4% over the last five years and the capacity growth rate has reached around 2%. In 2019, the day maximum demand was 2,327.3 MW and the night maximum demand was 2,668.7 MW. The maximum day peak demand in 2020 was the highest recorded at 2,394.1 MW on 12 March 2020 which was well below the dispatchable installed capacity. However, the use of more thermal power increases the unit cost of electricity. As per the CEB's predictions, by 2026, the day peak demand will surpass the night maximum demand.

13.4 Electricity Sector Reforms

Energy sector reforms are influenced by both global movements in the energy sector and local demand. Sri Lanka is an import-dependent country for energy resources and is heavily influenced by global trends. Hence, timely adjustments are crucial to secure a sustainable electricity sector in the country.

13.4.1 Global Reforms

Power sector reforms were introduced as a global movement in the 1990s after the perceived failure of the monopoly structure that prevailed in the power sector from the 1960s to the 1980s. The vertically integrated monopoly

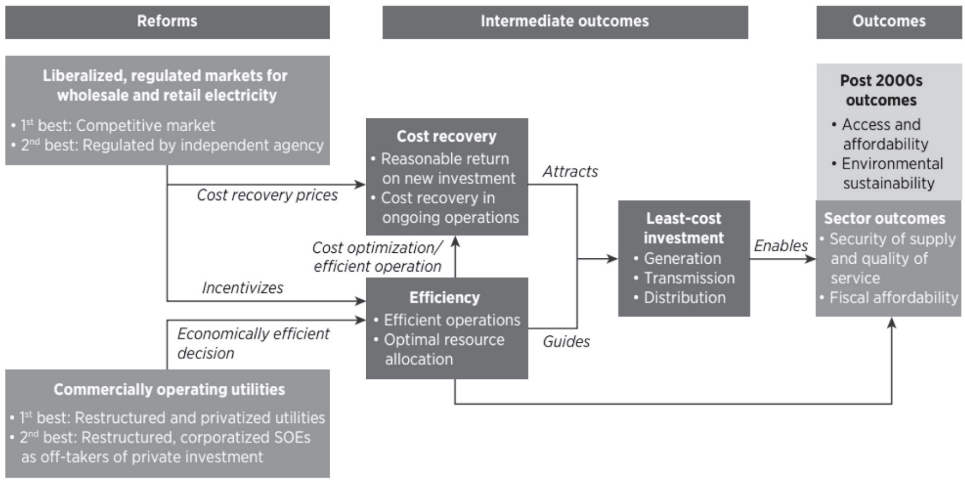
Power sector reforms were introduced as a global movement in the 1990s after the perceived failure of the monopoly structure that prevailed in the power sector from the 1960s to the 1980s. The vertically integrated monopoly structure failed due to inefficient operations, escalating subsidies and financing constraints.

structure was successful in infrastructure development. However, it failed after that due to inefficient operations, escalating subsidies and financing constraints.

The new reform model (Figure 13.4) introduced four structural reforms: regulation through an autonomous entity; restructuring through corporatisation, vertical and horizontal unbundling; private sector participation in generation and distribution; and competition in the form of a wholesale market.[15] However, adopting these reforms is only partially successful in most developing countries due to the lack of political support. The key findings reveal that developing countries do not behave as expected theoretically due to specific political-economic characteristics. Reforms were embraced if these favoured the country's political system and ideology. A gap in the adoption of regulatory reforms and actual implementation was prominent when the utilities were under state control. The initial starting condition of the country is found to have contributed to the outcome of the reforms as well. However, better results were observed when different forms of institutional patterns existed in the sector. Certain concepts, such as cost recovery, were challenging to adopt and sustain in these countries.

On the positive side, private sector participation appears to have contributed to improving generation capacity in developing countries. Good outcomes were observed in power transmission and distribution activities under favourable circumstances. It is observed that privatised utilities have had better corporate practices in human resources and financial discipline, contributing to better utility performance. Further, wholesale power markets were found to be successful in boosting the power sector's energy efficiency. [15]

Figure 13.4
The 1990 Reform Model



Source: World Bank. (2020). Rethinking Power Sector Reform in the Developing World. Washington, D.C.: World Bank.

[15] World Bank. (2020). *Rethinking Power Sector Reform in the Developing World.* Retrieved May 10, 2022, from World Bank: https://openknowledge.worldbank.org/bitstream/handle/10986/32335/9781464814426.pdf?sequence.

13.4.2 Local Reforms

With the development of electricity projects in Sri Lanka, the Department of Government Electrical Undertakings was replaced by the Ceylon Electricity Board (CEB), established by the CEB Act, No. 17 of 1969. The CEB was made responsible for the development and coordination of the generation, supply and distribution of electrical energy. Hence, the CEB had the sole authority as a monopoly in the electricity sector. Thereafter in 1983, LECO, a private limited liability company registered under the Companies Act, No. 17 of 1982, entered the distribution of electricity in the Kotte Urban Council area. However, the share of LECO was not large enough to effectively interrupt the CEB's monopoly's distribution. Even now, LECO covers the distribution of only 11% of the generation through its distribution network capacity.

The CEB was financially backed by the government and foreign loans for its capital investments in thermal and hydropower plants until 1996. Thereafter, the involvement of the private sector in electricity generation was initiated. IPPs and small power producers (SPPs) were allowed to enter power generation to fill this investment gap. Accordingly, thermal, mini hydro and ORE plants were established after 1996.

Thus, while the CEB had the sole authority to engage in electricity generation, transmission, and distribution activities until 1996, thereafter, generation and distribution activities were partially delegated to the private sector. However, transmission is handled by the CEB through a national grid system. As such, the CEB is the sole buyer of electricity from power plants. The CEB transmission grid covers the entire country, with 100% grid connectivity achieved by 2018. Its transmission and distribution losses were also reduced from around 24% in 2000 to 9% in 2020.[16]

To bring about continuous improvements, in 2002, the Electricity Reform Act, No. 28, was brought forward to legislate electricity sector reforms. It included a model to unbundle the generation, transmission, and distribution functions among a few state-owned independent companies to create competition at the generation level. In the following year (in 2003), the Public Utilities Commission of Sri Lanka (PUCSL), a regulatory body to oversee the electricity and water services industries, was formed by enacting the Public Utilities Commission Act, No. 35 of 2002.

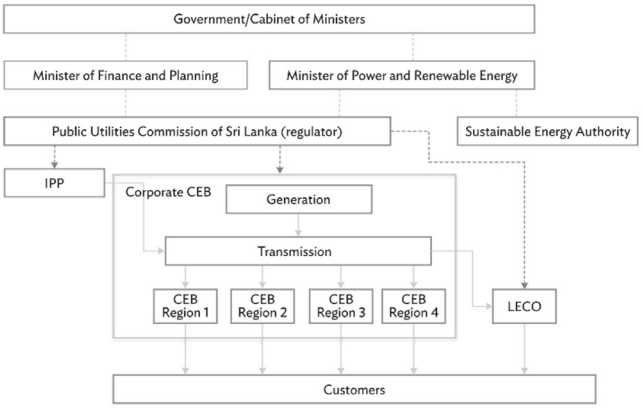
The Electricity Reform Act, No. 28 of 2002, was repealed by the Sri Lanka Electricity Act, No. 20 of 2009. This was mainly due to the resistance from the CEB staff and political regime change in the country. This Act had provisions for the PUCSL and was vested with the authority to determine electricity tariff rates, issue generation, transmission and distribution licenses, and safeguard the stakeholder interests. Hence, the intention was to "ensure sufficient capacity from the generation plan to meet reasonable forecast demand for electricity".[17] However, the level of restructuring introduced by this Act is lower than that of the 2002 Act. Nonetheless, with the enactment of the Sri Lanka Electricity (Amendment) Act, No. 31 of 2013, in 2013, the CEB was required to prepare the least cost long-term generation expansion plan (LCLTGEP) for approval by the PUCSL.

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[16] Ceylon Electricity Board. (2022). *Long Term Generation Expansion Plan* 2022-2041. Colombo: Ceylon Electricity Board.

[17] Parliament of the Democratic Socialist Republic of Sri Lanka. (2009). *Sri Lanka Electricity Act, No. 20 of 2009*. Colombo: Parliament of the Democratic Socialist Republic of Sri Lanka.

Figure 13.5
Electricity Industry Structure: Functionally Unbundled Power Sector Monopoly, 2009 to Present



Source: Asian Development Bank, (2019). *Sri Lanka Energy Sector Assessment, Strategy, and Road Map*. Retrieved May 20, 2022, from Asian Development Bank: https://dx.doi.org/10.22617/TCS190557-2

The structure of Sri Lanka's electricity sector is illustrated in Figure 13.5. The Ministry of Power and Energy is the apex body of the electricity sector, and the Ministry of Finance is involved in financing the electricity sector. The PUCSL is an independent regulatory body that acts as the electricity industry's economic, technical and safety regulator. Therefore, the CEB, IPPs, and LECO are regulated by the PUCSL, while the Sri Lanka Sustainable Energy Authority (SLSEA) is established under the Ministry of Power and Energy.

The functions of the electricity sector – generation, transmission, and distribution – are regulated by the PUCSL. Through the Electricity Act of 2009, the PUCSL issues licenses for generation, transmission, and distribution. Generation licenses are provided for the CEB and the IPPs, and the transmission license is provided only for the CEB by the Electricity Act 2009. Hence, the CEB acts as the sole buyer of electricity. Distribution licenses are provided for both the CEB and LECO. The CEB has four distribution regions under four licenses issued by the PUCSL. Initially, it was planned to give these licenses to various distributing companies under the 2002 Electricity Act, but it was abandoned later.

It is evident that reforms have been introduced to break the monopoly structure of the electricity industry functions; generation, transmission and distribution to create a more competitive industry structure. However, these reforms were not strong enough to break the monopoly so far due to the influence of the CEB and the lack of political will to follow through.

13.5 Towards Sustainable Energy: Constraints on Reforms

Generally, LCLTGEPs are prepared biennially by the CEB. It is a generation plan designed for two decades based on demand predictions for electricity. However, it is updated biennially to accommodate rapid changes such as technological developments, demand, etc. A generation mix with low cost is prepared

considering the existing policy developments in the country, and the PUCSL approves the plans. The most recent plan is prepared for the 2022-2041 period. A 5.6% growth rate is predicted for electricity for the oncoming 10 years. The peak demand is expected to rise by 5.4% over the same period. Therefore, a net generation rate of 5.6% is built into the plan during the 2022-2032 period.

The proposed LCLTGEP has considered the continuous addition of ORE capacity annually. Solar, wind, mini hydro and biomass additions are planned, while the capacities of solar and wind additions are prominent. Total capacity addition of 3,500 MW is predicted by 2030 and 9,500 MW by 2040 from ORE. It represents nearly 35% of the capacity additions up to 2030 and 33% by 2041. Hence, achieving 70% of electricity from renewables by 2030 is not planned.

Another option for Sri Lanka to meet its energy demand is through regional integration, in particular, with India. The initial feasibility studies on regional integration with India's power network are not financially or economically viable due to submarine cable and high voltage direct current (HVDC) technology requirements.[18]

Sri Lanka's Energy Policy 2019 has identified the need to introduce smart grid technologies for distribution and upgrade the transmission infrastructure. Smart grid technology is considered an effective infrastructure development to manage and distribute RE from solar, wind, and hydrogen. Alarmingly, lacking a long-term vision, this has been identified as a costly exercise by the CEB since upgrading to a smart transmission grid, and storage solutions may need a heavy capital infusion of USD 3.7 billion.[19] However, Sri Lanka spent USD 4.1 billion on energy imports in 2019, and one of the objectives of SDG 7 is to 'expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, which opens up avenues for financing this investment. Further, RE being a climate mitigation action is backed by SDG 13 and its Green Climate Fund. Therefore, available financing options need to be investigated by the relevant authorities. The addition of battery storage and pumped storage facilities are planned for ORE in the proposed LCLTGEP. Parallelly, thermal power capacity additions from natural gas are considered with conversions of existing plants to dual fuels to reduce the risk of heavy dependency on natural gas in the future. Some thermal plants are regarded for retirement.

The PUCSL rejects coal power additions due to the current policy context on commitments for the COP 21 Paris Agreement. Hence, this plan is to be revised by June 2022 to accommodate the 70% RE target, with no capacity additions for coal power generation and to achieve carbon neutrality by 2050.

13.5.1 Implementation Delays

According to the previous experience of the LCLTGEPs, the plans were up to the needs apart from the variations in demand forecasting. However, implementation delays have been quite prominent over the last decades. These delays have aggravated power generation costs, making it more expensive and inadequate to meet the current demand.

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[18] Ceylon Electricity Board. (2022). *Long Term Generation Expansion Plan* 2022-2041. Colombo: Ceylon Electricity Board.

[19] EconomyNext. (2021). *Sri Lanka Generation Plan Renewable Power Share for 2030 Equal to Germany: CEB Engineers.* Retrieved May 10, 2022, from EconomyNext: https://economynext.com/sri-lanka-generation-plan-renewable-power-share-for-2030-equal-to-germany-ceb-engineers-84506/

The PUCSL has identified significant shortcomings in the implementation of previous LCLTGEPs. This is argued to have led to unplanned power procurement, load shedding, and cost overruns.[20] For example, in 2016, the expected contribution from coal was absent in the actual generation mix, and other thermal capacity additions and retirements were not implemented. Therefore, the attributed consequences are the vertically integrated nature of the electricity industry. It is necessary to amend the Electricity Act of 2009 (Sections 8 and 9) to allow generation and transmission to be more liberalised.

It is necessary to amend the Electricity Act of 2009 to allow generation and transmission to be more liberalised.

13.5.2 Political Economy Issues

Sri Lanka's electricity sector has a wide consumer base of nearly 7 Mn, representing diverse sectors of consumer categories. Hence, successive governing political parties have neglected implementing a cost-reflective tariff structure to secure their votes. As a result, the CEB incurs losses by selling electricity below the production cost. The CEB's outstanding debts to the banking sector by the end of 2021 amounted to LKR 363,196 Mn, and another LKR 140,825 Mn is owed to the Ceylon Petroleum Corporation (CPC) and IPPs. This affects the financial stability of the banking system, especially the state-owned banks since the CEB is continually dependent on heavy borrowing.

Other than the lack of political interest in power sector tariff reforms, inherent issues exist related to the vertically integrated structure of the CEB. Since its establishment, the CEB has operated as a monopoly in generation, transmission, and distribution. However, with delays in the timely implementation of generation plans and other necessary infrastructure, Sri Lanka has continued to suffer from power outages during drought periods, as noted previously and is unable to provide a reliable supply for the citizens and investors. These create significant and ongoing losses to the economy. Similarly, unplanned costly power purchasing has seen a steep rise in the cost of electricity. Many parties raise these issues, and yet delays continue to be in place regardless of the economic and social losses to the country.

One of the main obstacles to the new plant establishment through the CEB is the lack of transparency in the tender process or violation of the tender process, competitive bidding, and influence wielded by politicians. These drawbacks are argued to hinder prospects of attracting low-cost options and better technologies to

[20] Public Utilities Commission of Sri Lanka. (2017). *Electricity Supply 2020 and Beyond: Challenges and Recommendations.* Colombo: Public Utilities Commission of Sri Lanka.

the country. Since the investments are long-term, the loss to the economy is long-term. The lethargic behaviour of CEB in ORE power plant establishment and the importance of making necessary investments in developing the relevant infrastructure in transmission to effectively utilise the ORE electricity are reiterated by many parties, including the investors. The structural reforms introduced in the 2002 Electricity Act were abandoned due to the influence of CEB staff unions. However, the prolonged monopoly structure in the electricity sector has reached an unsustainable level.

Therefore, strengthening good governance in the energy sector "to realise accountability, fairness, and transparency to achieve investor and consumer confidence" is a key requirement in the Energy Policy 2019. The CEB is expected to use the least cost generation mix for electricity generation. However, poor planning encourages unplanned power purchasing at a higher rate. This is also criticised with the possibility of the CEB acting in favour of private plant owners. Making the CEB accountable for associated cost accumulating actions would be necessary to minimise such practices from frequently occurring in the future too.

13.5.3 Renewable Energy Plans

Although Sri Lanka is a tropical island blessed with RE sources, it is poor in possessing non-renewable resources so far, other than potential natural gas and fuel in the Mannar area. Therefore, Sri Lanka is heavily import-dependent on its energy requirements. As the global energy demand rises and non-renewable resources deplete, its emissions exacerbate global warming and climate change. Hence, the world is moving towards RE sources.

Sri Lanka has solar, wind, biomass, and hydro as potential RE sources. Therefore, the SLSEA is the central entity formed in 2007 by the enactment of the Sri Lanka Sustainable Energy Authority Act to develop RE resources, declare energy development areas, implement energy efficiency measures and conservation programmes, promote energy security, reliability, and cost-effectiveness in energy delivery and information management and repeal the energy conservation fund Act, No. 2 of 1985. The SLSEA has identified potential areas for wind (9,910 MW), solar (29,639 MW), off-shore wind (92 MW), floating solar (2,415 MW), biomass (793.1 MW) and wave energy (47.3 Terawatt hour (TWh)/year).[21] The final site selection for generation plans is decided by the CEB, depending on the grid's transmission capacity. Therefore, transmission development with appropriate technologies is necessary to increase RE capacity.

A weakness of solar and wind energy is the variability of supply during the day. Hence, developing storage facilities is also necessary. As a solution to this issue, the LCLTGEP has included pump storage and battery storage facilities which have been successful in other countries. For example, Australia started storing solar in battery energy in 2015 and achieved 1 GWh in 2021. Germany and the US use battery storage on a grid-scale and home-based. Pumped storage systems have been used in the United Kingdom (UK) since 1963.

Battery storage effectively provides various grid services in the South Asian region. A feasibility study conducted in India shows that battery

[21] Sri Lanka Sustainable Energy Authority. (2021). *Renewable Energy Resource Development Plan 2021-2026.* Colombo: Sri Lanka Sustainable Energy Authority.

storage systems would be cost-effective by 2030, considering the developments in storage technology and cost reductions of battery storage in the coming years.[22] India's movement to a battery storage system would benefit Bangladesh, Bhutan, Nepal, and the South Asia grid.

The RE development plans have been incorporated into the LCLTGEP 2022-2041. It includes already committed hydropower plants of 35 MW Broadlands and 122 MW Uma Oya, and 31 MW Moragolla, which will be made available by 2022 and by 2024, respectively. A pumped storage power plant (3*200 MW) will be commissioned by 2029 with the necessary funding to absorb variable RE (solar and wind). During the first decade (2022 to 2031), the addition of 3,508 MW of ORE is planned. It includes 2,365 MW of solar and 965 MW of wind power capacities. The LCLTGEP reiterates the need for timely implementation of the scheduled activities due to additional delays in land acquisition and environment clearance procedures. Introducing a RE forecasting system, a 'Renewable Energy Desk' to the national control system, is proposed to monitor and balance the supply and demand. A battery storage system of 20 MW is planned for 2025, and to increase capacity to 100 MW is planned by 2030. The development of transmission infrastructure for each project is identified as crucial to the effective integration of power into the system. Securing of lands is another need for future generation projects. For example, Maha Oya (Aranayaka in Kegalle) and Victoria (Wewathenna in Kandy) areas are identified for pumped storage projects. Mannar, Pooneryn, Puttalam and Vadamarachchi areas are identified for wind park development. Suitable regions for solar park development are identified in Siymbalanduwa, Hambantota, Trincomalee and Pooneryn areas.

Another implementation issue of concern is the tendering process introduced after 2015 for the IPPs to enhance transparency. It takes nearly three years to decide compared to the earlier feed-in tariff system. The legal requirement from the Electricity Act, No. 20 of 2009, Section 43 (2) means that purchasing generation plants can only be carried out through a tendering process.

In June 2022, a Bill was passed to amend the Electricity Act, No. 20 of 2009, to eliminate the restrictions on tendering and introduce the generation limit of 25 GWh for a single producer.[23] It allows any service provider to enter power generation, and the CEB can decide the price. This method helps overcome the delays in the tendering process and to benefit from economies of scale. However, the immediate reason behind the decision and removing the maximum limit (25 MW) are criticised for the future possibility of forming a monopoly in the RE sector and losing the least cost options.

As a solution to the increase in daytime energy demand, solar generation additions (both rooftop and scattered solar plants) should be expedited, which is recommended by the PUCSL. According to the new plant additions, the transmission system should be expanded in a timely fashion. Generally, solar panels have a life expectancy of 30 years. After about 10 to 12 years, the efficiency drops by 10%, and a 20% decline may occur after 25 years. Depending on the quality of the panels, a 6-8% reduction in efficiency may occur

[22] Chernyakhovskiy, Ilya., Mohit, Joshi., David, Palchak., & Amy, Rose. (2021). *Energy Storage in South Asia: Understanding the Role of Grid-Connected Energy Storage in South Asia's Power Sector Transformation.* Colorado: National Renewable Energy Laboratory.

[23] Parliament of the Democratic Socialist Republic of Sri Lanka. (2022). *Sri Lanka Electricity (Amendment), A Bill to Amend the Sri Lanka Electricity Act, No. 20 of 2009.* Colombo: Parliament of the Democratic Socialist Republic of Sri Lanka.

after 25 years. Used solar panels are considered a general waste and in the EU region considered as e-waste which depends on metal composition. Recycling solar panels is successfully practised globally; however, with speculated needs for improving the capacities and costs to prevent landfill.[24]Sri Lanka also needs to consider recycling opportunities.

13.6 Conclusions

Sri Lanka's energy sector suffers from energy outages due to implementation delays in power plants, reflecting a lack of sound policymaking. Considering that these delays have prolonged, the impact on the country's economic growth and the quality of life of its citizens is significant. Hence, reforming the existing industry structure into a more competitive model is crucial.

Corruption in energy sector investment projects affects long-term economic growth. Therefore, good governance practices are a prerequisite for a sustainable electricity industry. Political influence and the lack of transparency in tendering and competitive bidding should be strictly avoided. Meanwhile, it is evident in many developing countries, adopting sound governance and management such as autonomy, composition and accountability of the board of directors, financial discipline, and handling of human resources and information technology in state-owned utilities have been difficult. Therefore, privatisation of utility functions to an effective level would enable a more competitive market structure and good governance.

Developments in the RE sector are visible in the long-term generation plans, and measures are taken for storage needs. However, the CEB considers necessary infrastructure development as an expensive investment. Hence, this is not included in a smart grid. Therefore, seeking necessary development assistance is suggested by the PUCSL. Developing a smart grid is crucial for RE's rapid expansion and effective incorporation. Hence, encouraging private investment in transmission infrastructure would be feasible to finance such investments. In the absence of government funds, inviting private sector participation to serve as Transmission System Operator/s (TSO) entity would achieve the dual objective of technology gap filling and vertical unbundling, which are successfully practised in other countries such as the US and the UK. Moreover, it avoids the possible conflicts of interest of CEB to avoid other power generators entering the market and unplanned power purchases.

Distribution, too, needs to be further unbundled horizontally to achieve competitiveness in the electricity distribution function. The current unbundling level is ineffective as nearly 89% of the distribution remains with the CEB. As a solution, it can be unbundled according to the four CEB regions, which are already technically facilitated for a similar distribution arrangement.

Considering the current economic situation and the energy sector's import dependence, the RE sector's development should be prioritised. This is backed by the global and local policy movement for cleaner energy. Necessary infrastructure development for transmission (smart grid) and storage facilities through private sector financing, foreign direct investment (FDI), or development assistance programmes and green (climate) financing opportunities have to be expedited. Meeting the financing needs of developing

[24] Source: Atasu, A., Duran, S. and Van Wassenhove, L.N., (2021). The Dark Side of Solar Power, Harvard business review, June 18, 2021. https://hbr.org/2021/06/the-dark-side-of-solar-power

countries for RE infrastructure development is one of the objectives of SDG 7 and is backed by SDG 13 Green Climate Fund. At the same time, facilitating and attracting rooftop and community solar power projects that go off-grid are recommended to overcome energy availability issues, given the current context.

Finally, a cost-reflective tariff mechanism which avoids subsidies is crucial to converting the CEB into a profitable enterprise and avoiding the unnecessary burden on the treasury and state banks. Instead of subsidies, the least-cost power generation options should be encouraged to reduce the electricity cost in the long run.

POLICY BRIEFS

14. Climate Change and Environmental Degradation: Circular Economic Options

14.1 Introduction

Sri Lanka is at crossroads in its efforts to achieve the Sustainable Development Goals (SDGs). After more than a year of the coronavirus (COVID-19) pandemic, thousands of lives have been lost, the human and economic impacts have been enormous, and rebuilding efforts so far have been inconsistent, inequitable, and inadequately directed towards achieving sustainable development. The present economic crisis jeopardises decades of development achievement, further postponing the critical transition to a more sustainable, inclusive economy and derailing progress toward the SDGs.

The present economic crisis jeopardises decades of development achievement, further postponing the critical transition to a more sustainable, inclusive economy and derailing progress toward the SDGs.

The inability to meet the SDGs can result from shortcomings in public policy, sluggish rate of change in investments, and consumption and production patterns. Progress is also influenced by various megatrends that shape the planet, including demographic shifts, urbanisation, climate change, wars and prolonged crises, and frontier technologies. Therefore, piloting new policy approaches is necessary, as well as examining the possible effects of different policy approaches and measurements. Especially for a country in a crisis like Sri Lanka, it is critical to look beyond present trends and plan for a sustainable development process. Indeed, the current linear economic system may be unable to

deliver viable solutions to address the cumulative effects of the economic crisis such as rising poverty and inequality and shortage of energy. On the other hand, as circular economic principles encourage reduce-reuse-and-recycling principles that enhance material use efficiency, adopting circular economic principles is more rewarding for Sri Lanka. This policy brief aims to discuss these issues in some detail.

14.2 Megatrends that Shape the World

The United Nations (UN) has identified five global megatrends: climate change, demographic transitions notably ageing, urbanisation, the advent of digital technology in the fourth industrial revolution, and inequality. These megatrends have emerged as significant drivers of fundamental social change, impacting a wide range of challenges and consequences addressed by public policy.

Certain megatrends are signs of human development, including technical advancements, urbanisation, and demographic trends. Others are the result of prolonged policy failures, thus the megatrend has taken on a life of its own, such as climate change and inequality. Climate change and environmental deterioration have no favourable side effects and have developed into catastrophic phenomena. This is mainly due to the lack of political support and policymakers' incapacity or reluctance to address the harmful externalities.

The five megatrends are inextricably linked. For instance, scientific advancements during the first industrial revolution ushered in the era of fossil fuels, which fuelled global warming and, subsequently, climate change. On the other hand, technological innovation will be fundamental to any resolution. Global population growth has intensified urbanisation and land-use patterns and considerably exacerbated environmental degradation and climate change.

The current linear economic system may be unable to deliver viable solutions to address the cumulative effects of the economic crisis, such as rising poverty and inequality and energy shortage.

14.2.1 Climate Change and Environmental Degradation: A Global Megatrend

Long-term changes in temperatures and weather patterns are referred to as climate change. Climate change epitomises the term ‘global public tragedy’ due to its widespread direct and indirect economic, social, cultural and environmental

impacts. The use of fossil fuels, such as coal, oil, and gas, has been the primary cause of climate change arising from human activity. As a result, greenhouse gas (GHG) emissions increased, escalating global warming and climate change.

Consequently, the planet's temperature is around 1.1°C which is hotter than during the late 1800s, and 2011-2020 was the hottest decade ever recorded.[1] Climate change-induced events and subsequent impacts have intensified over the years. Among the current effects are prolonged droughts, water shortages, catastrophic fires, rising sea levels, floods, melting ice caps, severe storms, and a decline in biodiversity. Such climate change-induced events adversely affect human health, agriculture, shelter, safety and employment.

As far as environmental degradation is concerned, environmental capital depletion leading to climate change is a worldwide phenomenon. Unlike other forms of capital, the depreciation of natural capital as a result of harm to the ecosystems is sometimes irreversible once it reaches a tipping point. In addition, the option of replacing other types of capital with natural capital is restricted. Its depreciation erodes the productive foundation and life-support systems vital for economic prosperity and human well-being.

Hence, the world is now facing additional threats due to environmental degradation. The increased risk of spreading zoonotic viruses like COVID-19 is mainly a result of sentient environmental changes such as forest cover conversion and more significant contact between inhabited areas and wildlife. Combating this rising trend requires knowledge of the intricate linkages between human culture and natural ecosystems.

14.2.2 Drivers and Consequences of Climate Change and Environmental Degradation

Climate change and environmental degradation are driven by diverse factors and have unprecedented consequences across communities.

Drivers and Consequences of Climate Change

Climate change is driven by human-induced and natural factors, and wherein human-induced drivers have the most significant contribution. In this setting, GHGs emissions by human activities and the changes in earth's reflectivity are the primary drivers. In addition, natural phenomena like changes in the earth's orbit and rotation, variations in solar activity, volcanic activity and changes in naturally occurring carbon dioxide (CO_2) concentrations are also considered drivers of climate change. However, annually, human activities emit roughly 30 billion (Bn) tonnes of CO_2 into the earth's atmosphere.[2] These are generated through industrial manufacturing, transportation, agriculture, electricity generation and commercial and residential activities. Since pre-industrial times, atmospheric CO_2 concentrations have grown by more than 40% from roughly 280 parts per million (ppm) in the 18th century to 414 ppm in 2020.[3]

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1 Intergovernmental Panel on Climate Change. (2018). *Global Warming of 1.5°C. An IPCC Special Report on the Impacts of Global Warming of 1.5°C Above Pre-industrial Levels and Related Global Greenhouse Gas Emission Pathways.* Geneva: Intergovernmental Panel on Climate Change.

2 Hayhoe, K., Wuebbles, D., Easterling, D., Fahey, D., Doherty, S., Kossin, J., & Wehner, M. (2018). Our Changing Climate. In L. Mearns, *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II* (pp. 72-144). Washington, D.C.: U.S. Global Change Research Programme.

3 United States National Oceanic & Atmospheric Administration. (2022). *Trends in Atmospheric Carbon Dioxide.* Retrieved May 10, 2022, from United States National Oceanic & Atmospheric Administration: https://gml.noaa.gov/ccgg/trends/mlo.html

Drivers and Consequences of Environmental Degradation

The environmental impact is widespread and extensive. Today, biodiversity loss has emerged as a serious issue, exacerbated by changes in land and sea usage. Ecosystems of all types – freshwater and forest ecosystems, inland waterways, polar, marine, and coastal ecosystems – are shrinking in quantity and quality due to climate change and other factors such as overexploitation and overharvesting, pollution, and invasive species. The draining of wetlands, burning of old-growth forests and transforming grasslands into profitable farmlands and pastures erode ecological systems' functionality and resilience. Such human activities that contribute to environmental degradation have direct and indirect repercussions on climate change through GHG emissions or removal of natural carbon sinks.

Water quality and soil contamination have deteriorated dramatically in most areas due to organic and chemical pollution, such as diseases, pesticides, heavy metals and microplastics. According to estimates by the World Health Organization (WHO), in 2016, 4.2 million (Mn) people died prematurely due to ambient air pollution, and around 4 Mn people die each year prematurely due to indoor air pollution.[4] Marine litter caused by plastic pollution continues to be a significant waste and resource management concern. The world produces 400 Mn tonnes of plastic waste annually.[5] At the same time, e-waste has become the world's fastest growing waste stream due to rising consumer demand, perceived obsolescence, and the launch of new electronic products. Global e-waste volumes grew by 21% between 2014 and 2019, doubling in only 16 years, discarding 53.6 Mn tonnes of e-waste in 2019.[6] In the existing economic system, an increase in waste buildup indicates an intensification of resource extraction. If this tendency continues, climate action may become exceedingly challenging.

According to the latest published estimates, in 2016, 4.2 million (Mn) people died prematurely due to ambient air pollution, and around 4 Mn people die each year prematurely due to indoor air pollution.

While climate change is a worldwide concern, it has varying effects on governments in various locations. Environmental degradation

[4] The World Health Organization. (2021, September 22). *Ambient (Outdoor) Air Pollution.* Retrieved May 10, 2022, from World Health Organization: https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health and The World Health Organization. (2021, September 22). Household Air Pollution and Health. Retrieved May 10, 2022, from The World Health Organization: https://www.who.int/news-room/fact-sheets/detail/household-air-pollution-and-health

[5] United Nations Environment Programme. (2022, May 5). *Our Planet is Choking on Plastic.* Retrieved May 05, 2022, from United Nations Environment Programme: https://www.unep.org/interactives/beat-plastic-pollution/

[6] Forti, V., Baldé, P., & Kueh, R. (2020). *Global E-waste Monitor 2020: Quantities, Flows, and the Circular Economy Potential.* Bonn/Geneva/Rotterdam: United Nations University.

and climate change disproportionately affect small island developing states and the least developed nations, as well as the most vulnerable individuals, including the elderly, disabled, women and children. As a result of climate change and environmental degradation, poverty, inequality and disadvantage have risen in recent years and this trend will probably continue.

14.3 Climate Change, Environmental Degradation and the SDGs

Climate change has direct and indirect linkages to 17 SDGs. It has the most direct impact on SDG 13 (climate action), while environmental degradation in its various manifestations, including biodiversity loss, has a detrimental effect on SDG 6 (safe drinking water and sanitation), SDG 14 (life below water), and SDG 15 (life on land). Since the repercussions disproportionately affect the most disadvantaged populations, these affect SDG 10 (reduced inequalities).

Climate change has several indirect connections to other SDGs. Climate action contributes to the achievement of SDG 7 since decarbonisation is a necessary component of potential solutions to climate change (affordable and clean energy). Natural capital loss due to environmental degradation erodes the foundations of future development and negatively impacts SDG 8 (decent work and economic growth).

Environmental degradation too has a profound linkage to SDGs. Modern schools of economic thought dictate that sustainable development can only be accomplished if there is a social foundation of well-being that no one should fall below, and an ecological ceiling of planetary pressure that human societies should not exceed. Between the two is a zone of safety and equity for every human being. Therefore, the social foundation of well-being depends upon the level of environmental degradation. If degradation is high, human society will not achieve the desired level of sustainable development. The world already exceeds the favourable planetary boundary in biodiversity loss, land conversion, nitrogen and phosphorus loading and climate change. Hence, environmental degradation links with all SDGs, especially SDG 8, SDG 12, SDG 13, SDG 14 and SDG 15.

14.4 Climate Change, Environmental Degradation, and Linear vs Circular Economic Principles

The linear and circular economic principles are two fundamentally different economic models which explain how materials are being extracted, transformed into products, consumed, disposed of, and reused. Hence, these two principles influence an economic system's contribution to environmental degradation and climate change.

In a unidirectional linear economy, the material is extracted, transformed into products and then disposed of at the end of its lifecycle. Therefore, this conventional model follows the 'take-make-dispose' stepwise approach. The model ultimately leads to mass consumerism, wherein firms produce and sell while consumers demand many products as possible. Hence, in the process, the linear economic model ignores a crucial aspect, i.e. resource constraints that lead to the exploitation of natural resources. Mass consumerism and aggressive advertising

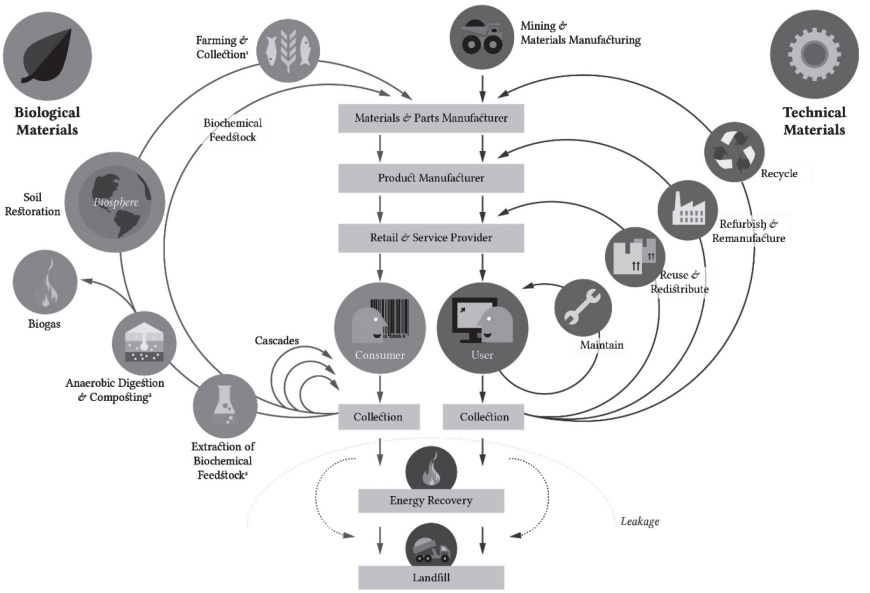
Transiting to a circular economic model is a way to achieve sustainable consumption and production by promoting reuse, remanufacture, recycling or recovery principles for increased resource use efficiencies.

campaigns of the linear model drive economies toward extensive production, leading to unprecedented environmental impacts such as rising global GHG emissions while generating water, sound and land pollution. The disposal of materials at the end of their life cycle or due to their non-fit for use subjectively to consumers results in waste management challenges and under-utilisation of materials.

Circular economy, on the other hand, is a way to achieve sustainable consumption and production that recognises the subjectivity of use-values of materials by promoting reuse, remanufacture, recycling or recovery principles for increased resource use efficiencies. The principles gained widespread attention as a measure to mitigate global emissions to address climate change. The goal is to retain the value of circulating resources, products, parts and materials by creating a system with innovative business models that allow for long life, optimal (re)use, renewability, refurbishment, remanufacturing and recycling. By applying these principles, organisations can collaborate to design waste management, enhance resource productivity and maintain resource use within planetary boundaries. Figure 14.1 illustrates the butterfly diagram used to model the circular economy.

Humans depend significantly on resource exploitation to power the economy. Each year, users extract around 60 Bn tonnes of raw materials or approximately 22 kilos per person daily. Firstly, almost half of the materials removed cannot be returned since these are fossil fuels or food items consumed. Secondly, a significant portion of the materials mined includes building minerals such as sand, gravel, and limestone utilised to manufacture cement, which is used to build homes, offices, roads, and other infrastructure. Construction materials are inert in physical constructions for extended periods (long-term stock). These materials are only recoverable during deconstruction at the end of their useful lives. However, materials are frequently downcycled in today's processes. Construction minerals are the most widely used material category, where 'virgin' resources are required due to limited existing reuse alternatives and to meet the growing need for infrastructure development. Thirdly, most of the remaining materials are utilised to manufacture commodities such as automobiles, refrigerators, apparel, cleaning chemicals, and personal care products.

Figure 14.1
Butterfly Diagram that Demonstrates Circularity



Source: Ellen MacArthur Foundation. (2015). *Towards a Circular Economy: Business Rationale for an Accelerated Transition. Cowes:* Ellen MacArthur Foundation.

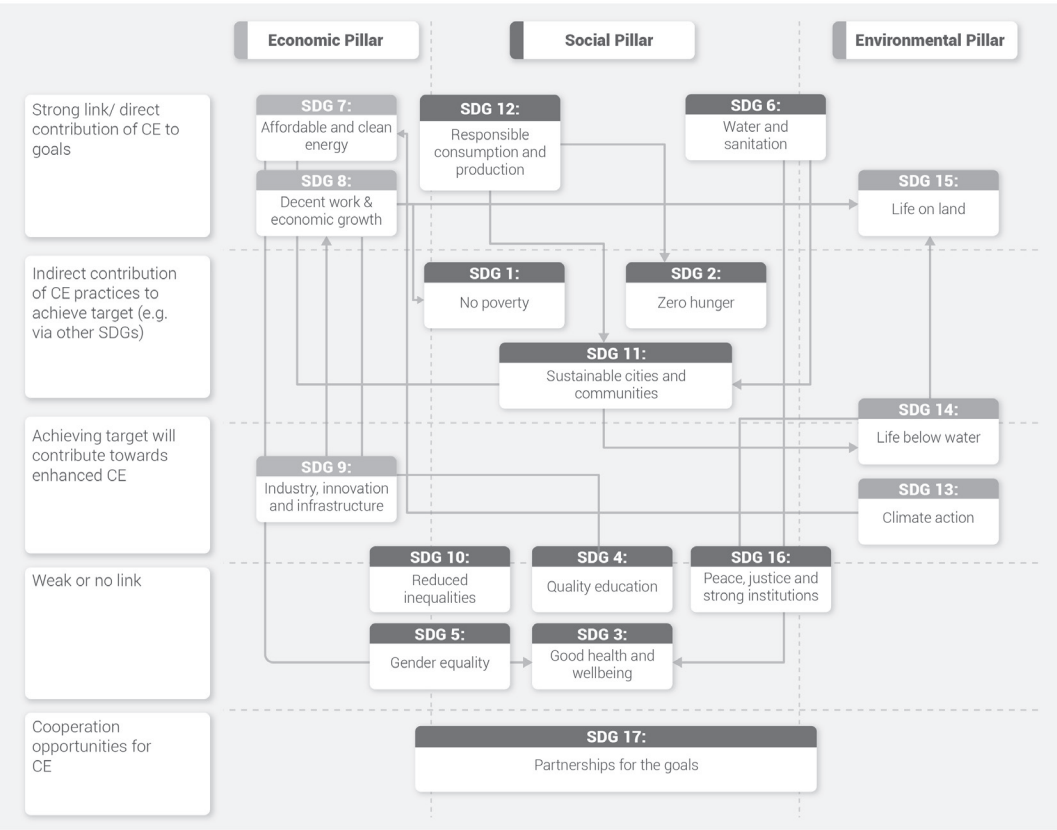
In aggregate, this is a vast and complex category of items with short to medium life spans in a linear economy. However, the possibilities for reuse are many. Certain goods, such as discarded paints and cleaning chemicals, are almost impossible to recover. Numerous additional items are now not recovered to their fullest capacity owing to a lack of collection infrastructure and methods for reuse and recycling, such as textile repurposing and construction and demolition waste recycling. In contrast, metals and glass are highly recoverable materials. According to the Circularity Gap Report (2020), only 8.6% of resources used by the global economy are recycled or reused.

Circular economy methods include measures applicable to a wide range of climate policies and strategies, such as increasing the amount of renewable energy in a country's energy mix and boosting energy efficiency. Additionally, the circular economy promotes strategies that minimise the use of virgin materials, maximise the efficiency of existing assets and minimise waste volume. The circular economy techniques for materials include the following: recovery and reuse, life extension, sharing and service models, circular design and digital platforms.

Employing circular economy principles in manufacturing and using commodities and resources in the economy can significantly minimise GHG emissions. These are summarised below.

Eliminating waste and pollution along the value chain can help minimise GHG emissions. Sustaining the usage of goods and materials to maintain the embodied energy in these and replenishing natural systems to sequester carbon in soil and products is another technique. Overall, these circular economy techniques constitute a collection of options that may be applied to the broader economy to tackle climate change.

Relationships Between
SDGs and Circular Economy Practices



Source: Schroeder, P., Anggraeni, K., & Weber, U. (2018). The Relevance of Circular Economy Practices to the Sustainable Development Goals. Journal of Industrial Ecology, 23(1), 77-95.

Hence, the circular economy is widely being viewed as a viable option to address the challenge of sustainable development. The following section examines how a circular economy aligns with SDGs to demonstrate how such tactics might result in sustainable development within the planetary boundaries.

By addressing the underlying determinants, the circular economy notion holds great potential for accelerating the 2030 Agenda with clear relevance to SDGs (see infographic). Accordingly, circular economic practices and associated business models may contribute to achieving various SDG targets. These assist in achieving 21 targets directly and an additional 28 targets indirectly, of the 169 SDG targets.

14.5 Transforming the Sri Lankan Economy to be More Circular

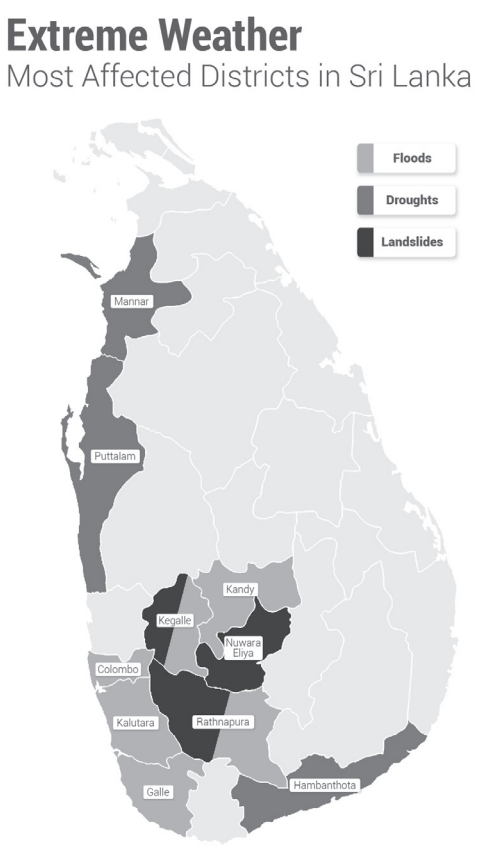
Climate change is a significant concern for Sri Lanka. The country, being an island, is affected by climate change in various ways including temperature variations, changing precipitation patterns, increasing sea levels, and more frequent extreme weather events. Almost everywhere on the island, the ambient temperature is rising vastly. Temperature fluctuations have

been documented in various sites, indicating a more rapid warming trendrising maximum daytime and night-time ambient temperatures. As a result, the increase in night-time minimum temperature contributes more to the average yearly temperature increase than the increase in daytime maximum air temperature.

There has been no discernible trend in terms of precipitation fluctuations. However, comparisons of yearly rainfall quantities in the country indicate that the average annual rainfall is on a declining trend. Nonetheless, rainfall variability has risen over time. This is particularly noticeable during the Yala season. Additionally, the number of consecutive dry days has grown radically, whereas the number of following rainy days has decreased. In other words, there have been more dry days than rainy days. As a result, the dry periods are sometimes referred to as prolonged droughts.

Extreme weather occurrences in Sri Lanka become more frequent as a result of these circumstances. Additionally, the severity of recent severe weather events such as floods and droughts has intensified. The higher rainfall has also increased the frequency of landslides. Notwithstanding this, the Germanwatch's Global Climate Risk Index placed the nation as the second most vulnerable globally in 2019 based on extreme weather events and weather-related loss events in 2017 and 1998-2017.[7] On the other hand, Sri Lanka was placed sixth in 2018 based on severe weather occurrences and weather-related loss events in 2018 and 1999-2018.[8]

Other studies reveal a strong trend toward droughts in the Southern district of Hambantota and the North-western area, which comprises the Mannar and Puttalam districts. Furthermore, flood hazards are elevated throughout the country's Western, South-western, Northern, North-eastern, and Eastern regions, with Kegalle, Ratnapura, Kalutara, Kandy, Colombo, and Galle designated as the most flood-prone districts. Eight districts in the Central highlands are at risk of landslides. The Kegalle district is the most risk-prone, followed by Ratnapura and Nuwara Eliya (see infographic). Apart from these localised developments, effects of the more recent above-average sea-level increase of 1-3 millimetre



Sources: Zubair et al, (2006) and Ministry of Environment, (2011).

[7] Germanwatch. (2019). *Global Climate Risk Index 2019: Who Suffers Most from Extreme Weather Events? Weather-related Loss Events in 2017 and 1998 to 2017.* Berlin: Germanwatch.

[8] Germanwatch. (2020). *Global Climate Risk Index 2020: Weather-Related Loss Events in 2018 and 1999 to 2018.* Berlin: Germanwatch.

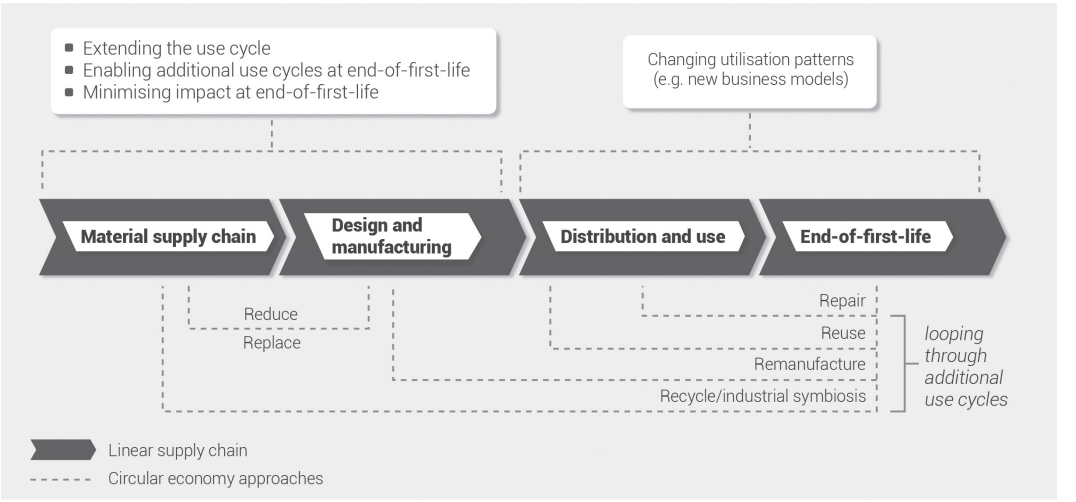
(mm)/year seen in the Asian region, as well as a rapid sea-level rise between 1993 and 2001, remain unknown.[9]

Against this background, the notion of a circular economy is taking hold among government and corporate leaders alike as a viable alternative to the linear 'take-make-dispose' economy that currently exists. Their thoughts are piqued by the prospect of decoupling economic development from virgin resource inputs, fostering innovation, boosting growth, and generating more robust employment. This idea arrives at a critical point; a proliferation of innovative goods and sharing platforms demonstrate that circular value generation models exist in corners of the economy. The current issue is to scale this work to effect systemic change.

14.5.1 Industry and Circular Consumerism

According to the Sri Lanka Sustainable Energy Authority's 2019 Energy Balance, the country's industrial sector needs energy from three primary sources: biomass (33%), petroleum oil (34%), and electricity (33%). Notably, CO_2 emissions from the industrial sector (manufacturing and construction) consisted of 842.3 gigagrams of carbon dioxide ($GgCO_2$) from fuel combustion and 492.4 $GgCO_2$ from industrial processes in 2011, according to the recently released GHG Inventory.[10] The World Bank reports that Sri Lanka emitted 21,630 kilotonnes (KT) of CO_2.[11] Hence, it is crucial to assess a circular economic transformation to address the growing energy demand and

Integrating Circular Economy Ideas
Into Traditional Value Chains



Source: Preston, F., & Lehne, J. (2017). A Wider Circle? The Circular Economy in Developing Countries. London: Chatham House.

[9] Climate Change Secretariat of Sri Lanka. (2016). *The National Adaptation Plan for Climate Change Impacts in Sri Lanka 2016-2025 (NAP).* Colombo: Ministry of Environment.

[10] Ministry of Environment. (2011). *Sri Lanka's Second National Communication to Climate Change.* Colombo: Ministry of Environment.

[11] The World Bank. (2022, May 5). *Co2 Emissions (Kt) - Sri Lanka.* Retrieved May 05, 2022, from The World Bank Data: https://data.worldbank.org/indicator/EN.ATM.CO2E.KT?locations=LK

minimise GHG emissions. Such interventions will aid in achieving SDG 7 and SDG 13.

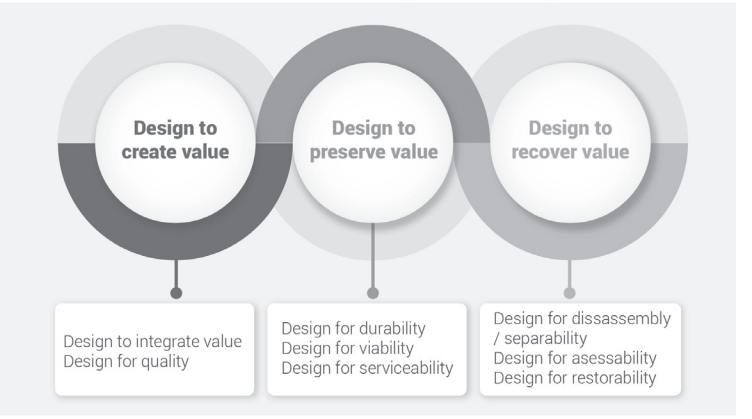
The industry sector needs a revolutionary transformation from its pre-existing linear economic models. Therefore, initially, the industry actors could transform their value chains. Incorporating circular economic principles into value chains, as shown in the infographic, enhances the industrial actor's ability to achieve SDG goals and targets.

The circular economy is a strategy to mitigate negative economic consequences that result in resource waste and impairment of human health and ecological systems. Here, GHG emissions are one of these unintended consequences. Others include air, land, and water pollution and under-utilisation of assets such as buildings and automobiles. This notion encompasses three critical measures for reducing GHG emissions: designing for circularity, eliminating wastages and substituting material.

Design for Circularity

Design is critical in supporting any circular economy vision. It is critical to mitigate adverse effects, ensure that goods and materials are designed to be used and regenerate natural systems from the start. Many commodities, on the other hand, include components or constituents that render these or its by-productsas unsuitable for reuse as inputs in subsequent cycles. As a result, product design should also consider excluding potentially harmful elements from goods. For example, the majority of plastic packaging is designed in a way that it is meant for landfill, incineration, or escape into the environment after a single brief use. When it comes to recycling, mixing and degrading effects are especially problematic for plastics, rendering a significant portion of used plastics unusable. Approximately 30% of plastic packaging will never be reused or recycled without robust redesign and innovation.[12] Conversely, a circular pathway toward sustainable product designs are available (see infographic).

Product Development Using
Circular Economic Design Principles



Source: United Nations Environment Programme. (2018). Redefining Value: The Manufacturing Revolution. Nairobi, Kenya: United Nations Environment Programme.

[12] Ellen Mac Arthur Foundation. (2022, May 5). *Plastics and the Circular Economy.* Retrieved May 05, 2022, from Ellen Mac Arthur Foundation: https://archive.ellenmacarthurfoundation.org/explore/plastics-and-the-circular-economy#:~:text=Currently%2C%20only%20around%2014%25%20of,of%20the%20plastic%20pollution%20crisis

Eliminate waste: The product design significantly influences waste reduction. Material inputs can be minimised via material efficiency architecture, while waste generation can be minimised through supply chain optimisation. Both are efficient techniques to reduce carbon footprint and materials utilised per unit of currency of gross domestic product (GDP).

For instance, waste management is one such sector that the country could benefit from in the short term. Despite many formal regulatory frameworks for managing waste in Sri Lanka, poor waste management remains one of the most severe environmental challenges. The waste generation has increased from around 6,400 metric tonnes (MT)/day in 1999 to 10,768 MT/day in 2020 due to population increase, urbanisation and economic growth.[13] Of this, approximately 32% is collected on average across the island. Of the total waste generation, 60% is attributed to the Western Province, with a total generation of 1,783 MT/day.[14] In Sri Lanka, more than 60% of municipal solid waste (MSW) is biodegradable organic matter.

The widespread method of waste disposal in Sri Lanka continues to be open dumping – the disposal of waste without measures to control leachate or GHG emissions, particularly Methane. Further, open-burning waste, including plastics, is widely practised to reduce collected waste volumes by households and local authorities. When recyclable wastes are not removed from the waste stream, a large volume of waste (sometimes the entire volume) generated within an area is inexorably dumped. The lack of reliability of waste-related data is a significant concern that hinders MSW planning. Generally, all MSW statistics available at local authorities or waste processing and disposal facilities are rough estimates. Further, the lack of proper disposal facilities can be attributed to the gaps in the collection that can be avoided with the availability of end-of-the-pipe disposal facilities.

Therefore, one strategy for goods and assets is to minimise waste caused by over-specification. Additionally, there is potential to decrease waste by better customising items to particular needs. Value chains and assets should be purpose-built to maximise utilisation. Apart from commodities, systems may be built to eliminate waste. Waste generation in supply chains may be reduced by minimising material loss during manufacturing.

Material substitution: This is the process of substituting renewable, low-carbon, or secondary materials for primary materials in new manufacturing. These serve a similar purpose as the previous ones but assist in reducing emissions. Renewable materials may be beneficial for substituting emissions-intensive inputs. It may allow items to bind carbon and function as carbon sinks. It is vital to source renewable materials, such as wood, from sustainably managed plantations since illicit logging irreversibly destroys enormous natural carbon sinks and their accompanying biodiversity, which cannot be effectively regenerated. Additionally, employing non-sustainable wood products has a more significant negative impact on the environment than the advantages of utilising low-carbon materials in structures. Other than renewables, additional low-carbon material replacement alternatives include using secondary materials (e.g. recyclates), high-performance materials that minimise the need for virgin materials and

[13] Ministry of Environment. (2021). *National Action Plan on Plastic Waste Management 2021-2030.* Colombo: Ministry of Environment.

[14] Fernando, R., & Lalitha, S. (2019). Solid Waste Management of Local Governments in the Western Province of Sri Lanka: An Implementation Analysis. *Waste Management* (84), 194–203.

The circular economy is oriented toward processes that conserve value in energy, labour and materials. This includes engineering for durability, reusability, remanufacturing, and recycling to keep items, parts and materials in circulation.

materials with recyclability (e.g. recyclability, durability) are essential in this regard.

Continuous Use of Products and Material

The circular economy is oriented toward processes that conserve value in terms of energy, labour and materials. This includes engineering for durability, reusability, remanufacturing, and recycling to keep items, parts and materials in circulation. Circular systems maximise the economic value of biologically derived materials by promoting several economic applications until nutrients are returned safely to natural systems. This paradigm proposes two complementary ways to conserve energy content in commodities and materials: reusing products and components and recirculating materials.

Products and material reuse: Steps to improve reuse have one goal – i.e. to save energy content and other precious resources used to manufacture products, components and materials. The more a product is used, the more significant benefits in resources currently embedded in the product such as material, labour, energy and capital, should be realised. Additionally, by reusing items and materials, GHG emissions related to the creation of new materials and end-of-life handling are prevented. As a result, reuse-based economic models demand less material input and produce fewer GHGs to deliver the same social benefit.

Material recirculation: Recirculation is the process of recycling materials in the technological and biological cycles. Here, GHG emissions are minimised by avoiding the manufacture of new virgin materials and end-of-life management operations such as incineration and landfilling. Although enhancing product utilisation and extending the product life are the most effective ways to maintain the embodied energy in items, recycling processes consume far less energy than the manufacture of virgin materials.

Recycling thus reduces emissions from energy usage as well as manufacturing processes, which are among the most challenging to manage. Additionally, it is more cost-effective to utilise electricity and other low-carbon sources of energy to assist in recycling than to produce new materials, aligning it with the goal of a net-zero economy. Recirculating materials in the food system entails valorising wasted

organic resources such as food waste and envisioning these as feedstock for the circular bio-economy. The efficiency of the collecting system and the purity of waste streams significantly impact the types of merchandise that may be manufactured. Purer waste streams may be used in new construction materials, textiles, or even nutrition. Composting or anaerobic digestion of additional mixed waste streams may be used to generate energy and soil nutrient products. These transformation procedures add value and prevent direct GHG emissions connected with landfilling and energy consumption involved with renewable material production.

14.5.2 Agriculture and Food Systems

Employing circular economy concepts to reduce carbon emissions from agriculture and thereby reaping additional system benefits is critical for addressing climate change. Agriculture, Forestry, and Other Land Use (AFOLU) emissions are caused by deforestation and agricultural operations such as livestock management, soil and nutrient management, and the way people use land. While food production accounts for a significant portion of AFOLU, it is just one component of a more comprehensive food system that encompasses all activities linked to food consumption (planting, harvesting, processing, packing, distributing, marketing, consuming, and disposal of food and food-related materials).

The circular economy promotes renewable resources and attempts to improve natural systems by replenishing the soil with vital nutrients. Carbon sequestration is a possibility with this regeneration technique. For instance, regenerative agriculture refers to agricultural and animal practices that benefit the neighbouring natural environment. Regenerative farming practices may help minimise GHG emissions, but these can also help capture carbon in soils and plants. Minimising soil disturbance and boosting soil carbon content are critical processes for realising the promise of regenerative agriculture.

Regenerative agriculture results in a cascade of systemic advantages, including improved soil structure that allows for increased water storage and more biologically active soils, which create soil fertility without synthetic inputs.

Regenerative agriculture results in a cascade of systemic advantages, including improved soil structure that allows for increased water storage and more biologically active soils which create soil fertility without synthetic inputs. Regenerative techniques include using organic

fertilisers, the use of cover crops, crop rotation, reduced tillage and the cultivation of additional crop types to improve agro-biodiversity. This concept encompasses farming practices such as agroecology, rotational grazing, agroforestry, silvopasture and permaculture.

14.5.3 Built Environment-Design Circularity into Stocks

Sri Lanka must make advances in this difficult-to-abate industry by incorporating circularity into new development projects. Incorporating these into infrastructure to support a rapidly growing middle class through lightweight and recycling can result in substantial emissions and material footprint cutbacks. Policies should restrict stock increase, regulate the reuse of building material, and prolong the durability of buildings and infrastructure to mitigate the effect of one of the world's most polluting industries, i.e. construction.

Sri Lanka's rising urbanisation demands additional stock construction, which is already visible. There is a likelihood to reduce flows by planning for the future and using locally sourced, lightweight materials (such as bamboo, clay, and loam) in favour of emissions-intensive, conventionally linear materials like cement, steel and glass. These initiatives should be targeted in the most potential sectors such as developing tourist resorts. Progress in architectural and engineering applications for regenerative wood materials enables the use of locally produced and renewable wood in a greater range of applications, including high-rise structures. If cement usage is unavoidable, the government might significantly reduce emissions by substituting organic residuals such as rice husks for carbon-intensive clinkers. In Brazil, for example, a unique manufacturing chain employs aça pits in place of clinkers, thereby improving the sustainability of the energy matrix and creating local employment.[15] For example, advancements in bio-based building materials have influenced lives and housing projects in Kenya, where specialist projects produced a material sheet composed entirely of leftover waste from maize and rice harvests.[16] The technology is both affordable and environmentally friendly, and it can be acquired locally for use in building projects. Tsoga Environmental Centre, a community centre located in Cape Town's informal settlements embodies these principles: the project was designed to upskill and employ people, use locally sourced and sustainable materials and enhance the neighbourhood's inhabitants' quality of life.[17]

14.5.4 Transportation: Clean Mobility

Transportation continues to be a significant source of emissions, particularly in nations where commuting, international travel and automobile ownership are widespread. Meanwhile, in Sri Lanka, rapid urbanisation is progressing, placing the country's transportation networks under significant pressure. The need for efficient and sustainable passenger and freight transportation reverberates across metropolitan areas. However, demand cannot be met by conventional modes of transportation dependent on fossil fuels. Rather,

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[15] UN Environment. (2017). *Economically Viable Solutions for a Low-CO2 Cement Based Materials Industry.* Nairobi: Economy Division, UN Environment.

[16] Wakhung, J. (2017). *Adoption of Green Building Concepts in Residential Developments in Nairobi City County.* Nairobi: University of Nairobi.

[17] Rendall, A., & Cowen, A. (2007, January 11). *Tsoga Environmental Centre and Local Sustainability Catalyst.* Retrieved May 05, 2022, from Holcim Foundation: https://www.holcimfoundation.org/projects/tsoga-environmental-center-and-local-sustainability-catalyst-so

urban design should prioritise fossil-free mobility and deploy current and digital technology to renew flows/mobility patterns. Shifting business models and consumer behaviour away from ownership and toward sharing and adding durable designs and features to automobiles seem to be significant areas for improvement.

Circular approaches can lead to sustainable urban transportation. The country may reduce its carbon and resource footprints by reducing its reliance on transportation. Rapid urbanisation often corresponds with the difficulty of developing efficient and well-distributed transportation networks. Through rethinking the business model and embracing urban planning, people can build well-coordinated communities where inhabitants can easily commute to school, workplace, retail and leisure on foot or bicycle. As a result, traffic, congestion and resulting air pollution will be reduced considerably. For example, efforts to induce a modal shift are already underway throughout many nations, ranging from the deployment of high-speed electric trains linking metropolitan areas in India to the revival of colonial-era rail lines in Africa. Although options are limited to regenerating and electrifying car transport in Sri Lanka due to lower ownership rates of suitable vehicles (e.g. electric vehicles) and a lack of charging infrastructure, there is still room to contribute significantly by electrifying its motorbike fleet and public modes of travel.

Although options are limited to regenerating and electrifying car transport in Sri Lanka due to lower ownership rates of suitable vehicles and a lack of charging infrastructure, there is still room to contribute significantly by electrifying its motorbike fleet and public modes of travel.

14.5.5 Enabling Environment

While enterprises are primarily responsible for these four key components, various enabling variables may significantly aid the transition, such as education, funding, collaboration platforms and restructuring economic frameworks.

Education can play a critical role in moulding future specialists for a new economic framework, especially in inculcating and developing the skill set necessary to drive circular innovation.

Education: Education can play a critical role in moulding future specialists for a new economic framework, especially in inculcating and developing the skill set necessary to drive circular innovation. The government should promote the inclusion of circular economy and systems thinking in elementary and secondary schools and university curricula. For instance, under the project E-SPACE, the Foundation for Environmental Education executes the 'eco-schools project' for advancing the circular economy.[18]

Financing: All players across value chains will require access to finance and risk management tools to support capital investment and innovation. Investors place a premium on a steady regulatory system, which can be especially encouraging when a government declares its desire to shift to a circular economy. The government can stimulate additional funding by assuming some associated risks with novel business models. BlackRock, the leading client-focused asset manager globally, established a circular economy public equity fund in October 2019.[19] In doing so, BlackRock has sent a powerful message to all other investors and traders through this fund that the shift to a circular economy is occurring and that money invested in the circular economy not only adds value to a more adaptable and regenerative society but also offers the ability to generate better economic and competitive earnings. BlackRock's circular economy fund raised over United States Dollars (USD) 1 Bn in its first year, beginning with an initial capital of USD 20 Mn in October 2019. The fund has accumulated more than USD 2 Bn in assets under management as of July 2021.

Platforms for collaboration: Impactful cross-chain and cross-sector partnerships are critical for establishing a circular economy on a large scale. The formation of collaborative platforms across sectors or between industries and policymakers could enable collaborative product development, IT-enabled integrity and information exchange, joint collection systems, industry standards, aligned incentives and matchmaker techniques.

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[18] Sharma, P. (2020, June 3). *Circular Economy Education – A Concept that Integrates Environmental Action in Schools.* Retrieved May 06, 2022, from eTwinning: https://www.etwinning.net/en/pub/etwinning-plus/highlights/circular-economy-education--a.htm

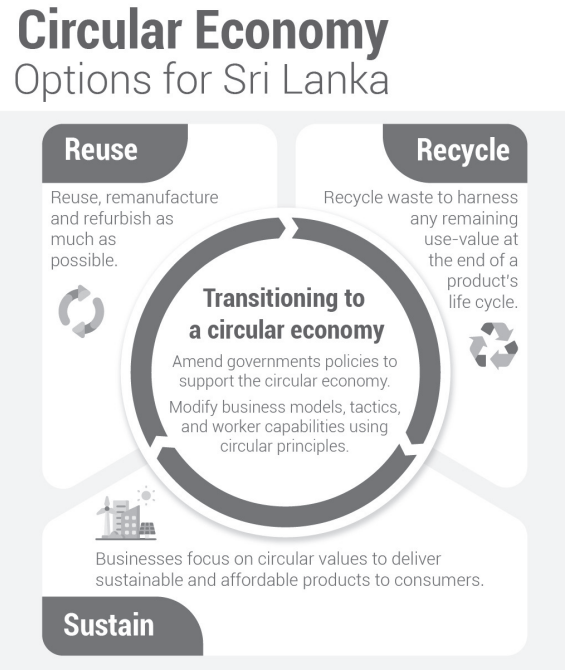
[19] Ellen MacArthur Foundation. (2022, May 22). *The World's Largest Investor Embraces the Circular Economy: BlackRock.* Retrieved May 22, 2022, from Ellen MacArthur Foundation: https://ellenmacarthurfoundation.org/circular-examples/the-worlds-largest-investor-embraces-the-circular-economy-blackrock

For instance, Holcim, Geocycle, and GIZ have formed a strong partnership to reduce plastic waste and marine litter in India, the Philippines, Mexico, and Morocco.[20]

Restructuring the economic framework: Changes to the present tax structure and how economic success is measured might pave the way for a systematic shift to the circular economy. Fiscal incentives should be shifted away from resources toward labour, complementing today's flow-based metrics such as GDP with measures of a country's stock of assets and developing a long-term plan to rebalance factor costs. Adequately pricing crucial externalities are also instruments for policymakers to develop a new economic framework that would support the transition to a circular economy. The Netherlands is a classic example in terms of its efforts to develop a circular economy. It expects to create a nation whose whole economy is based on circularity by 2050.

14.6 Conclusion

Businesses, governments and individuals are becoming more and more aware of the problems generated by the current 'take-make-dispose' model of manufacturing and utilisation. This economic structure encourages intensive material extraction and processing, which contributes to a rise in GHG emissions. The circular economy, which encourages the eradication of waste and the continuous, safe use of natural resources, is an approach that can provide economic advantages while reducing GHG emissions that contribute to climate change. This change demands unprecedented coordination, resources and support from institutions. Due to its extensive direct and indirect effects on the triple bottom line (people, planet and prosperity), a circular economy may accelerate the achievement of SDGs.



[20] Holcim. (2021, September 14). *Partnerships to Advance the Circular Economy.* Retrieved May 22, 2022, from Holcim: https://www.holcim.com/who-we-are/our-stories/partnerships-advance-circular-economy

15. Reducing Inequalities for a Sustainable Future

15.1 Introduction

Inequalities are present throughout the world and have existed for decades. These can take various forms, such as inequalities in resource distribution, access to opportunities, inequalities in income distribution, etc. Income inequality is an element of concern as it is often linked with the lack of access to healthcare, acceptable nutrition levels, suitable job opportunities, quality education and infrastructure facilities, etc. If not effectively addressed through policy interventions, these factors can widen existing inequalities in the long term, leaving poorer households more vulnerable.

The unprecedented impacts of the coronavirus (COVID-19) pandemic have been felt globally, leading to a slowdown in progress made towards diminishing global inequalities. Pandemic-induced job and income losses, school closures, healthcare shortages, etc., have reversed the progress towards reducing inequalities within and between countries. Such adversities most prominently affected low-income households and led to worsening intergenerational inequalities.

In the context of Sri Lanka too, a reversal in progress towards lowering poverty is noted. Most recently available national data indicate that 14.3% of the population live on less than Sri Lankan Rupees (LKR) 6,966 per month (updated poverty line). This amounts to over three million (Mn) individuals living in poverty as of 2019.[1] The data also report a considerably large share of near-poor individuals clustered just above the poverty line. These groups are highly vulnerable and at risk of slipping into poverty following the slightest of adversities. As such, it is unsurprising that COVID-19 pushed many into poverty, increasing the United States Dollar (USD) 3.20 per day poverty rate from 9.5% in 2019 to 11.7% in 2020.[2] Given the current economic position, it is likely that Sri Lanka will have more poor people in the coming months and years, with the existing poor falling even deeper into poverty.

In this context, the goal of reducing inequalities as outlined under the Sustainable Development Goals (SDGs) takes on even more urgency than ever before. SDG 10, which aims to reduce inequalities within and among countries, is quite broad and consists of 10 targets, measured using 11 indicators. The targets revolve around various forms of inequalities such as disparities in income distribution, gender and other biases restricting socioeconomic inclusion of all persons, discriminatory laws and policies, improved

[1] Department of Census and Statistics. (2022, April). *Poverty Indicators - 2019.* Retrieved May 10, 2022, from Department of Census and Statistics: http://www.statistics.gov.lk/Poverty/StaticalInformation/PovertyIndicators-2019

[2] World Bank. (2022, April 21). *Macro Poverty Outlook for Sri Lanka: April 2022.* Retrieved May 10, 2022, from World Bank: https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099155004242210138/idu00e3dca3e035c704cfa0b36f03152bed719cc

monitoring of financial markets, and enhanced representation for developing countries in the global sphere, etc. The most crucial of these in the context of COVID-19-related impacts and the fallout of a severe economic crisis for a country like Sri Lanka is Target 10.1 towards 'progressively achieving and sustaining income growth of the bottom 40% of the population at a rate higher than the national average by 2030.' Against this background, this policy brief broadly focuses on income inequalities within and among countries, emphasising the progress towards achieving SDG 10, with particular attention to income inequality within Sri Lanka.

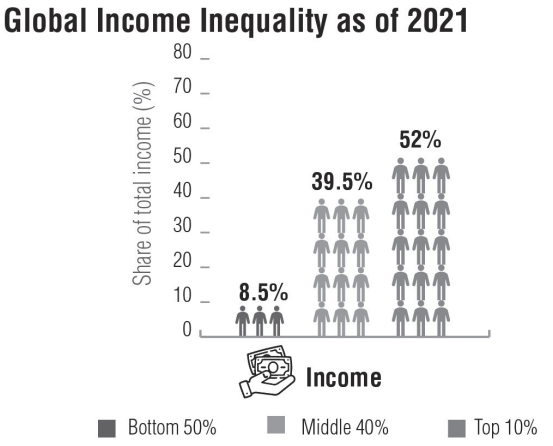
On average, an individual representing the top 10% of the global income distribution earns USD 122,100 per year, while a person belonging to the poorest half earns an annual income of around USD 3,920.

15.2 Global Income Inequalities

Prior to examining the ways in which the per capita income of low-income families can be improved, it is vital to know where the world currently stands in terms of the distribution of incomes. Global income as of 2021 was USD 122 trillion, while the average income per adult was USD 23,380.[3] In an ideal world, every person would have earned USD 23,380 in 2021, leading to zero disparities in income distribution. Unfortunately, this is far from the truth. Income distribution among individuals varies significantly, both within and across countries. On average, an individual representing the top 10% of the global income distribution earns USD 122,100 per year, while a person belonging to the poorest half earns an annual income of around USD 3,920. Therefore, understanding the existing disparities in income distribution plays a crucial role in achieving Target 10.1 by the 2030 deadline.

Global income inequalities have always been very large. Around 60% of global income belonged to the richest 10% of the world population in 1910, while the poorest 50% took home a mere 7% of global income. By 2021, the share of income earned by the bottom half of the world population grew to 8.5% of income. Only one-tenth of the world's population (517 Mn adults) belong to the top 10%, while around 2.5 billion (Bn) adults belong to the bottom half. Regardless of a slight increase in the share of income accruing to the bottom 50% since the start of the 20th century, the disparity continues to be significant, with the bottom half capturing a negligible share of global income.

[3] Chancel, L., Piketty, T., Saez, E., & Zucman, G. (2022). *World Inequality Report 2022.* Paris: World Inequality Lab.



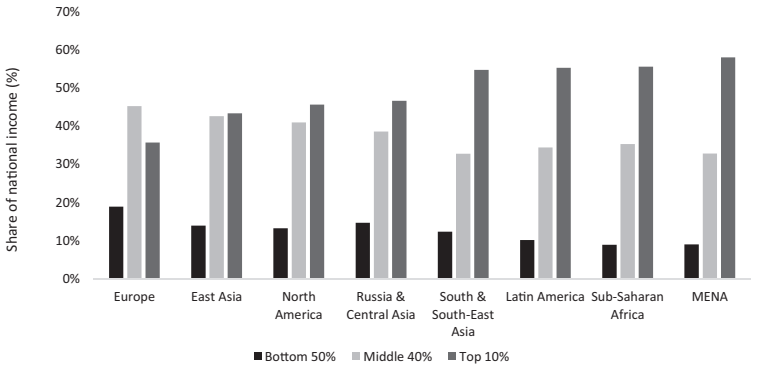
Note: Income is computed after pension/unemployment benefits are paid and before income taxes/other transfers.
Source: Chancel, L., Piketty, T., Saez, E., Zucman, G. et al. World Inequality Report 2022, World, (2022).

15.2.1 Income Inequalities Among Countries

Income inequalities between countries have been declining over the past few decades. In 1980, the average income of the world's richest countries (top 10%) was 53 times more than the average income of the poorest 50% of countries. Although still significant, this gap reduced to 38 times by 2020. This fall can be attributed to the growth in average incomes of developing countries such as China and India, which has helped minimise the gap with high-income nations. Although a positive sign, this trend is likely to be slower given recessions and inflation brought on by the COVID-19 pandemic.

At the regional level, as of 2021, Europe maintained the most level of equality in income distribution between the rich and poor, with the top 10% enjoying around 36% of national income and the bottom 50% capturing a share of

Figure 15.1
Income Inequality by Region, as of 2021



Note: Income is computed after pension/unemployment benefits are paid and before income taxes/other transfers.
Source: Chancel, L., Piketty, T., Saez, E., & Zucman, G. (2022). World Inequality Report 2022. Paris: World Inequality Lab.

nearly 20%.[4] Further, it is the only region where middle-income earners collectively capture a larger share of national income than the top 10%. Contrastingly, the Middle East and North Africa (MENA) region indicates the highest levels of income inequality. The difference in income inequality between Europe and MENA is highly significant.

The South and South-East Asian region to which Sri Lanka belongs falls not far behind MENA in unequal income distribution. In this region, the bottom half of the population earns only 12% of national income, while the top 10% capture over half of it.[5] As such, within the South and South-East Asian region, the top income earners earned over 22 times more than the poorer half of the population in 2021.

15.2.2 Income Inequalities Within Countries

Inequality within countries, measured by the ratio between the average incomes of the top 10% and the bottom half of the population (assuming all counties have the same average income), has been on a gradual uptrend since the 1980s. This gap in incomes earned between the top 10% and bottom 50% of individuals within countries has nearly doubled as of recent. It is at a historic high today. Further, studies reveal that as of the 21st century, global inequality within countries exceeds inequality between countries. As measured by the Theil Index, in

Income Inequality in South and South-East Asia



Source: Chancel, L., Piketty, T., Saez, E., Zucman, G. et al. World Inequality Report 2022, World Inequality Lab, (2022).

Although global income inequalities between countries have somewhat reduced over the past few years, the same is not true for the distribution of incomes within countries. Income inequalities within countries have intensified over the recent past.

2020, within-country inequalities accounted for around two-thirds of global income inequality among individuals.[6] While many factors contribute to the rise in inequalities, COVID-19 has played

[4] Chancel, L., Piketty, T., Saez, E., & Zucman, G. (2022). *World Inequality Report 2022.* Paris: World Inequality Lab.

[5] *Ibid*.

[6] *Ibid*

As of the 21st century, global inequality within countries exceeds inequality between countries.

a significant role in widening income disparities. This is due to the impacts of the pandemic being unequal across income groups, with the poor and vulnerable facing a much harder time with post-pandemic recovery in comparison to individuals with higher incomes.

At the regional level, South and South-East Asia, along with Sub-Saharan Africa, show increased shares of participation in the global bottom 50% of the income distribution from 2010 onwards. South Africa, Brazil, and Mexico are amongst the countries that report the highest gap in income distribution between the rich and poor. While there are many reasonable grounds for the rise in income disparities within countries, the COVID-19 pandemic can be attributed as a critical reason for the recent increase in inequalities. The pandemic has impacted inequality in more ways than one by exacerbating existing inequalities both among and within countries.

15.2.3 COVID-19 Pandemic Impacts on Income Inequality

COVID-19 has amplified global income inequality, partially reversing its decline, i.e. improvement achieved during the past 20 years. Compared to 2019, global income is believed to have decreased by 4.1% in 2020 due to the pandemic. With the effects of COVID-19 varying across regions, the South and South-East Asian region accounted for 24% of the fall in global incomes in 2020. Latin America and Europe experienced the most significant income shocks in 2020, each with a 7.6% decline in national incomes compared to the previous year.[7]

In addition to the pandemic impacting inequality, findings also reveal that pre-pandemic inequality affected the spread of the virus. In October 2020, the COVID-19 cases reported in countries with relatively higher income inequalities were significantly higher than those reported in countries with more equal income distributions. For instance, by March 2021, the United States (US), Brazil, Mexico, and South Africa – countries with relatively high within-country inequality – which account for around 9% of the world's population, accounted for 38% of the global COVID-19 related death rate.[8] Further, in terms of social distancing measures such as lockdowns, countries with higher income inequalities implemented stringent measures during the initial stages of the pandemic. However, such measures have not been as effective in reducing caseloads compared to countries with fewer inequalities.

The various social protection responses implemented during this time have helped lessen the impacts of COVID-19 to some

[7] Chancel, L., Piketty, T., Saez, E., & Zucman, G. (2022). *World Inequality Report 2022.* Paris: World Inequality Lab.

[8] United Nations Department of Economic and Social Affairs. (2021, April 01). *Monthly Briefing on the World Economic Situation and Prospects.* Washington, D.C.: United Nations.

extent. The stimulus packages introduced by governments have helped reduce poverty amongst low-income households. This is especially true for more affluent countries. In Europe, for instance, income inequality would have risen to a much larger extent in the absence of government interventions via relief initiatives and unemployment guarantees.[9] In contrast, the effects of COVID-19 on inequalities have been more pronounced for low-income countries (LICs), especially for those without strong social protection systems.

COVID-19 unfairly affected low-income groups as they experienced greater uncertainty with pandemic-induced job and income losses. Poorer groups, likely engaging in work that require their physical presence at job sites, were largely affected by social distancing regulations hindering their ability to work. They were also at higher risk of experiencing multiple shocks such as limited access to affordable healthcare, food shortages, etc. Their inability to maintain pre-pandemic income and consumption levels contributed to enhancing existing inequalities. In the long term, these factors can lead to deepening and widening the gap between the rich and poor within and between countries.

Against this backdrop of enhanced disparities, achieving SDG 10 is necessary for many reasons, the most crucial being that "inequalities threaten long-term social and economic development, harms poverty reduction and destroys people's sense of fulfilment and self-worth."[10] Therefore, reducing inequalities is vital to successfully achieveing sustainable development. Meeting the targets outlined by SDG 10 is closely connected to the achievement of other goals of the 2030 Agenda as well. Hence, it is imperative that nations actively work towards reducing inequalities both within and among countries.

15.3 SDGs and Progress Towards Reducing Inequalities

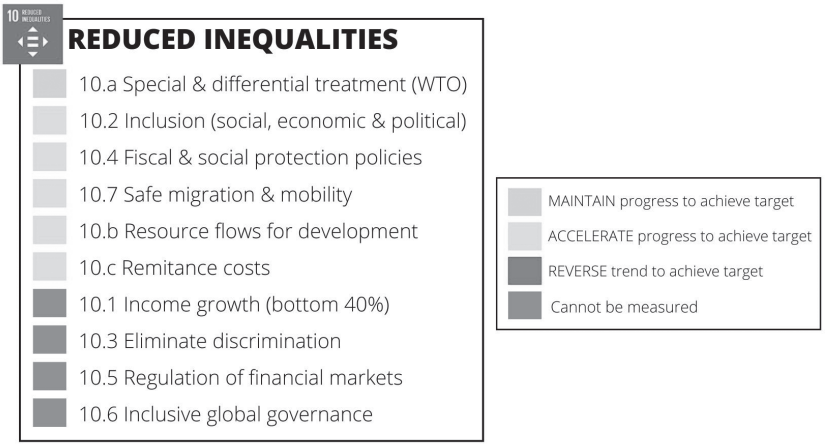
Over the years, some progress has been made worldwide towards achieving SDG 10. As per the Sustainable Development Report 2022, very few countries have succeeded in achieving SDG 10, while some others are on track to achieve it by 2030, despite several challenges.

Denmark, Iceland, Norway, Ukraine, Belarus, Algeria, Kazakhstan, Moldova and Azerbaijan are among the countries that have successfully achieved the goal of reducing inequalities. Several other countries are predicted to be on track for achievement, despite the presence of significant challenges. Interestingly, all countries – except

Within the Asia and Pacific region, only one of the 10 targets for SDG 10 (Target 10.a) can be met by 2030 while maintaining existing levels of progress.

[9] Chancel, L., Piketty, T., Saez, E., & Zucman, G. (2022). *World Inequality Report 2022.* Paris: World Inequality Lab.
[10] United Nations.Org. (n.d.). *Reduced Inequalities: Why it Matters.* Washington, D.C.: United Nations.

Figure 15.2
Achievement of Goal 10 by 2030 in the Asia-Pacific Region



Source: United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP). (2022). Asia and the Pacific SDG Progress Report 2022: Widening Disparities Amid COVID-19. UNESCAP, Statistics Division. Bangkok: United Nations.

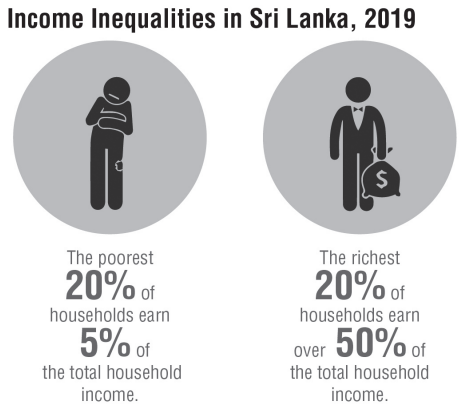
for Algeria – that have succeeded in achieving SDG 10 are either Organisation for Economic Co-operation and Development (OECD) countries or in the Eastern Europe and Central Asian region. Most of these countries belong to the latter region. With regards to the achievement of SDG 10, most other countries have significant challenges ahead of them. For instance, the poorest 40% of people in 73 countries witnessed a growth in their incomes between 2012-2017; however, this was still less than 25% of overall national incomes.[11]

Within the Asia and Pacific region, only one of the 10 targets for SDG 10 (Target 10.a) can be met by 2030 while maintaining existing levels of progress (Figure 15.2). Progress towards achieving SDG 10 varies to a great extent within the Asia-Pacific. The East and North-East Asian subregions show acceptable improvement by reporting a drop in the population living below 50% of median income (Indicator 10.2.1), thus improving socio-economic and political inclusion of all (Target 10.2). In contrast, progress towards the achievement of SDG 10 has been highly sluggish in the North, Central, South and South-West subregions of Asia. Overall, although some progress has been made to reduce inequalities, the speed of progress would have to be doubled for the Asia-Pacific region to achieve SDG 10 by the 2030 deadline. This is especially true concerning reducing income inequalities, the focus of this policy brief.

15.4 Income Inequalities in Sri Lanka

Disparities in income distribution among various population segments have been a persistent problem in Sri Lanka. As per the latest available Household Income and Expenditure Survey (HIES) 2019 data, the poorest 20% of households were left with around 5% of the total household

[11] United Nations Economic and Social Council. (2020, April 28). *Progress Towards the Sustainable Development Goals: Report of the Secretary-General. (E/2020/57).* Washington, D.C.: United Nations.



Household Income and Expenditure Survey 2019 - Final Report, (2022, April). Department of Census and Statistics.

income, while the richest 20% enjoyed over half of it (Figure 15.3a). The disparities in income distribution are more significant at the sectoral level, with the urban-rural divide being more notable (Figure 15.3b). The gap between the incomes earned by the richest 20% and the poorest 20% of the population is highest amongst households in the urban sector. Interestingly, middle-income earners in the estate sector enjoy the largest share of income, unlike in the other two sectors where the rich receive the majority of income.

Analysis of monthly mean household per capita income for 2019 based on household size shows that per capita income decreased as household size increased. The mean monthly per capita household income was reported at LKR 20,527 for 2019. At the sectoral level, the urban sector recorded a mean household per capita income of LKR 30,452 per month. In contrast, the rural and estate sectors reported comparatively low figures with LKR 18,870 and LKR 11,647, respectively. Considering mean per capita expenditure per month, LKR 16,959 was recorded at the national level for 2019, while the urban, rural and estate sectors reported LKR 24,898, LKR 15,650, and LKR 9,573, respectively.[12] As evident from these values, poorer households tend to have less money to spare considering their average per capita expenditure in comparison to the average incomes earned. This further confirms

Figure 15.3a
Share of Household Income Received, by Income Group, 2019

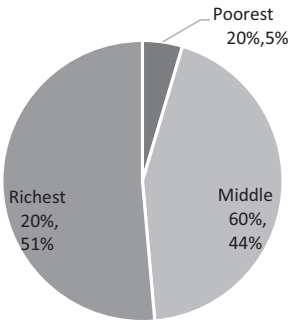
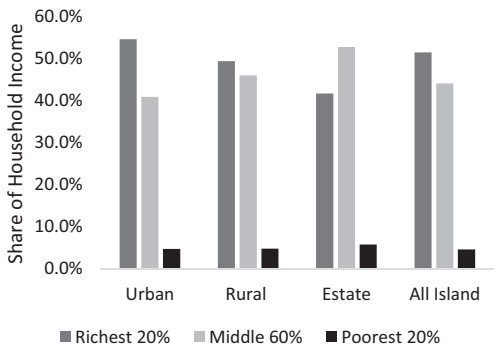


Figure 15.3b
Share of Household Income Received, by Sector, 2019



Source: Department of Census and Statistics. (2022, April). *Household Income and Expenditure Survey 2019 - Final Report.* Retrieved May 10, 2022, from Department of Census and Statistics: http://www.statistics.gov.lk/IncomeAndExpenditure/StaticalInformation/HouseholdIncomeandExpenditureSurvey2019FinalReport

[12] Department of Census and Statistics. (2022, April). *Household Income and Expenditure Survey 2019 - Final Report.* Battaramulla: Department of Census and Statistics.

the existence of considerable income inequalities throughout the country, especially among diverse demographic groups.

Many factors contribute to the relatively high levels of income inequalities in Sri Lanka. The disparity in resource allocations across regions plays a vital role in this regard. For example, poorer regions, such as areas of the estate sector, have limited access to healthcare, education, employment opportunities, etc. This inevitably put individuals in such regions at a disadvantage unless they move to more urban areas where access to the above mentioned aspects is relatively better. However, relocation itself is a costly task for a low-income individual. While these factors have been contributing to the disparities in income distribution for years, the same factors have also been aggravated since the onset of the pandemic. These trends will likely worsen further in the context of Sri Lanka's worsening economic conditions.

15.4.1 Sri Lanka's Economic Crisis and Impacts on Inequality

The COVID-19-induced job and income losses aggravated income inequalities worldwide, and Sri Lanka has been no exception. This was more so for low-income groups that have experienced higher labour market shocks and other adversities. This is a concerning situation as Sri Lanka was experiencing considerably high levels of income inequalities even before the pandemic. The current socioeconomic climate of the country is likely to make the problem go from bad to worse unless stringent measures are taken to address the situation.

The freefall of the country into its worst economic crisis since independence will aggravate inequities further. Sri Lanka is already experiencing high inflation levels and maintaining foreign currency reserves to import essential items such as food, medications, and fuel is an ongoing battle. This has severely impacted everyday life in the country, with the crisis affecting all social groups, from children to the elderly.

While impacts of the economic crisis are felt across the board, the effects are more potent on low-income groups. For instance, small-business owners are unable to carry out business operations due to power outages, daily-wage earners such as three-wheeler drivers have to spend considerable amounts of time in fuel queues, individuals are not able to travel for work, and workplaces do not have adequate facilities to carry out daily operations. Such inconveniences are hindering individuals from earning their regular incomes. Further, the rising cost of living coupled with reduced incomes is leading to many poor and vulnerable groups cutting down on essential consumption, including food.

Political and social instability in the country and the lack of painless short-term solutions to overcome the crisis mean a high probability of existing income inequalities being exacerbated. The cost of living is bound to increase further in the coming months, pushing poor households more into poverty. Declining income and consumption levels along with disruptions to education and employment brought on by the economic crisis are likely to lead to long-term consequences. Further, the lack of access to healthcare, shortages in essential medications and rising costs of medicines owing to the sharp depreciation of the LKR are likely to lead to poor healthcare outcomes, especially among low-income families. These factors will exacerbate existing inequalities in income distribution by deepening and widening the already significant

levels of income disparities in Sri Lanka that will last for years.

15.5 Sri Lanka's Progress Towards Achieving SDG 10

Sri Lanka received a score of 53.4 in terms of overall progress towards achieving SDG 10 as of 2022. In comparison to counterparts in the East and South Asian region, Sri Lanka performs somewhat poorly in terms of reducing inequalities. Most other countries in this region have scored higher and are slightly closer to the optimum score of 100 (indicating the goal has been achieved).

Two global indicators are used to monitor the progress towards SDG 10: the Gini coefficient and the Palma ratio. As shown in Table 15.1, Sri Lanka has a somewhat high Gini value compared to other middle-income countries (MICs). This is also true in terms of the Palma ratio, which measures the incomes received by the top 10% as a share of the poorest 40% of the country's population. The prevalence of a relatively high degree of within-country inequality is evident based on Sri Lanka's performance on these two indicators. While most MICs have significant challenges in achieving SDG 10, Sri Lanka too will need to make substantial progress toward reducing inequalities if the country is to achieve SDG 10 by the 2030 deadline.

The household per capita income of Sri Lankans belonging to the bottom 40% of the income distribution has improved significantly by 10.5% from 2009/2010 to 2012/2013.[13] Between the 2012/2013 to 2016 HIES periods, it has grown at 26% – at a rate faster than the national average (Target 10.1). The share of the population living below 50% of the national median income was 12.3% in 2016 (Target 10.2).[14] This includes a

Table 15.1
Sri Lanka's Progress Towards SDG 10 vs Selected Middle-income Countries, 2022

Country	Goal 10 Score	Gini Coefficient[a]		Palma Ratio (2018)	Ability to Meet the 2030 Deadline
		Year	Value		
Thailand	69.7	2019	34.9	1.5	Significant challenges remain
Maldives	85.6	2016	31.3	1.2	Challenges remain
Malaysia	47.4	2015	41.1	2.0	Major challenges remain
Sri Lanka	53.4	2016	39.3	1.9	Significant challenges remain
Philippines	34.8	2018	42.3	2.3	Major challenges remain
Bangladesh	81.3	2016	32.4	1.3	Significant challenges remain
India	35.8	2011	35.7	3.1[b]	Significant challenges remain

Note: Countries are listed in order of 2022 SDG Index ranking from top to bottom. a. The Gini coefficient adjusted for top incomes unaccounted for in household surveys. This indicator takes the average of the unadjusted Gini and the adjusted Gini. b. Palma Ratio for India is from 2011 data.

Source: Sachs, J., Lafortune, G., Kroll, C., Fuller, G., & Woelm, F., (2022). From Crisis to Sustainable Development: The SDGs as Roadmap to 2030 and Beyond. Sustainable Development Report 2022. Cambridge: Cambridge University Press.

[13] Department of Census and Statistics Sri Lanka. (2017). *Status of Sustainable Development Goals Indicators in Sri Lanka: 2017.* Battaramulla: Department of Census and Statistics.

[14] Government of the Democratic Socialist Republic of Sri Lanka. (2018) *Sri Lanka Voluntary National Review on the Status of Implementing Sustainable Development Goals.* Washington, D.C. and Colombo: United Nations.

Reducing global income inequalities requires strategies to minimise income disparities within and among countries.

relatively higher proportion of females living on less than 50% of median income compared to their male counterparts. This is likely due to low-income, rural Sri Lankan households generally having a larger share of male breadwinners and lower female participation rates in productive economic activities.

Equal access to opportunities plays an important role in reducing inequalities (Target 10.3). Sri Lanka has made significant progress in this regard with the early adoption of universal healthcare and education policies that aim to provide free healthcare services to all citizens and free learning opportunities to students until the bachelor's stage of university. These policies have contributed to the country recording very high literacy rates compared to its South Asian neighbours. In addition, various medical assistance and scholarship programmes introduced by successive governments also ensured more equitable access. While these policies and programmes have broadly supported minimising inequalities, disparities continue at the regional level. For example, access to services in terms of the availability of medical equipment and resources differs greatly among hospitals in the Western and Northern Provinces. Such regional disparities continue to prevail throughout the country, hindering progress toward reducing disparities.

While sufficient evidence proves that inequalities within the country have been high, these need to be interpreted with some caution. This is due to majority of this data indicating the situation before the COVID-19 pandemic and hence does not provide the most accurate representation of current standing. The pandemic and economic crisis undoubtedly increased existing inequalities; therefore the likelihood of inequality in Sri Lanka being much greater than presented by these figures is a cruical point to emphasise. However, this only confirms that Sri Lanka needs to make greater strides in reducing disparities and actively ensure that the country is moving towards achieving SDG 10 by 2030 in line with the Sustainable Development Agenda.

15.6 Conclusion and Recommendations

Inequalities affect everyone and are prevalent globally. However, inequalities are experienced by the poor and vulnerable at a severe level, be it by low-income individuals from more affluent countries or LICs in general. As such, lowering inequalities should be a key priority for all nations, rich and poor alike.

Overcoming disparities in income distribution is by no means an easy task. With existing inequalities

aggravated by COVID-19, achieving SDG 10 by 2030 is much more challenging. However, it is not impossible but requires considerable effort, policy interventions, and sustainable social and economic action. Reducing global income inequalities requires strategies to minimise income disparities both within and among countries.

Pandemic-induced social distancing policies and lockdowns widened existing income gaps between the rich and poor. Low-income households were disproportionately affected by COVID-19, so measures must be taken to support them to return to their pre-pandemic income levels. Support for the poor and vulnerable can be in the form of cash and in-kind transfers in the short term. However, long-term support is required to ensure vulnerable groups overcome existing income disparities. Investments to improve rural infrastructure such as roads, water and electricity have been positively linked with low-income households' access to markets. Further measures must be taken to enhance productivity and improve female labour force participation, especially in rural areas. Labour market policies that promote gender equality have been found to generate positive long-term impacts in reducing income disparities.[15] Initiation of training and skills development workshops at the village level are other tools that can be effective in this regard.

Most strategies that can be used to reduce income inequalities within countries require significant investments by governments. Evidence suggests that taxes and transfers are some of the most powerful tools in reducing income disparities.[16] However, Sri Lanka needs to approach such policies cautiously as the country is currently at a critical juncture due to the prevailing economic crisis. Hence, measures such as increasing consumption taxes (for example, value-added tax) may exert an added burden on low-income families who are already struggling to make ends meet. Such upward revisions of taxes should therefore be accompanied by targeted initiatives that support the poor such as cash transfers in the short term. Although cash transfers are not a sustainable long-term solution, these need to be implemented at least for the poorest households to meet their basic needs, such as food, given the country's current economic status. The rising cost of living and continuous inflationary pressures profoundly affect the livelihoods of the most vulnerable, leaving them in severe need of government assistance.

Given Sri Lanka's current fiscal constraints, resources must not be wasted, and spending must be targeted solely to support the most vulnerable. To accurately assess those most in need and effectively help them, the government can utilise existing social protection programmes such as Samurdhi, Elders Assistance, Disability and Kidney Patients' Assistance programmes, etc. Since these programmes have already been used during the COVID-19 emergency relief distribution, the most vulnerable groups have been identified, and execution mechanisms are already in place. Therefore, utilising these programmes is the quickest and most cost-friendly solution to reach those in need. A framework to ensure targeting is strictly met should be followed beyond the immediate short term.

If immediate action is not taken to reduce the impacts on the poor and vulnerable, these

[15] World Bank. (2022). *Global Economic Prospects, January 2022.* Washington, D.C.: World Bank. doi: 10.1596/978-1-4648-1758-8.

[16] *Ibid*.

groups are at significant risk of facing acute food insecurities, loss of income, absence of healthcare and learning disruptions, etc., which can lead to long-term inequalities that are irreversible for years to come. Once the urgent risks have been mitigated, measures must be taken to reduce long-run inequalities. This includes improving the existing social protection system in terms of targeting and as an emergency response tool. Further, a range of medium - to long-term initiatives need to be taken to reintegrate low-income individuals into the labour market, ensure consistent income streams, and assist younger generations with catching up on missed educational opportunities. However, the current focus should be on ensuring the poor and vulnerable are not left far behind, thus preventing them from further marginalisation. As such, government policy measures need to be well-balanced in supporting Sri Lanka out of the prevailing economic crisis and supporting the most vulnerable.

16. Banning Chemical Fertiliser: A Threat to Sustainable Agriculture and Food Security?

16.1 Introduction

Sri Lanka is facing one of its worst economic crises, on the heels of the havoc created by the coronavirus (COVID-19) pandemic and policy responses. The fallout includes disruptions to the country's food supply system as well. The prices of all food items are on the rise, alongside shortages of essentials and long queues. The adverse impacts of food shortages and high prices are causing public unrest, especially among the poor people with limited access to food.

As the economic crisis unfolded, the government announced a ban on the importation of chemical fertilisers, pesticides, and herbicides as of May 2021. Inorganic fertilisers have been provided at a subsidised rate to farmers for paddy cultivation since 1962 (except for 1990-1994) and free of charge for paddy up to a cultivation extent of five acres from mid-2020. Financing this massive subsidy has been a cause of concern in recent times because of increasing cost implications. Even more so, environmental and health impacts of chemical fertiliser overuse have been of serious concern. However, the sudden move to ban chemical fertilisers and agrochemicals with the end aim of transitioning to 100% organic farming was fraught with risks. The agriculture sector has since suffered from loss of production, sparking unrest among farmers due to the significant drop in farm incomes, food shortages and rising food prices. The loss of farm-related livelihoods in turn resulted in a further deterioration of food security in the country.[1]

With Goal 2 of Sustainable Development Goals (SDGs) urging countries to "end hunger, achieve food security and improved nutrition and promote sustainable agriculture", Sri Lanka's efforts under its national policy framework of 'Vistas of Prosperity and Splendour' to promote organic agriculture, organic fertilisers, organic food consumption, and organic food exports to ensure the people's right to safe food within 10 years is commendable. However, the sudden ban was merely a supply-side intervention that suppressed the choice of farmers engaging in conventional agriculture, leading to a sudden, non-voluntary conversion without meeting essential supply and demand-side conditions.[2] Especially, proper strategies or formalised plans were not put in place to expand organic fertiliser

[1] World Food Programme and Food and Agriculture Organization. (2022). *Hunger Hotspots. FAO-WFP Early Warnings on Acute Food Insecurity:* June to September 2022 Outlook. Retrieved March 03, 2022, from WFP: https://docs.wfp.org/api/documents/WFP-0000139904/download/

[2] Institute of Policy Studies of Sri Lanka. (2021). Environment, Food Security and Health: Policy Changes Post Pandemic in *Sri Lanka State of Economy 2021.* Colombo: Institute of Policy Studies of Sri Lanka.

Higher prices increase recurrent government expenses, particularly when combined with fertiliser subsidies, impacting farmers worldwide. In developing and emerging countries, there will likely be attempts to cushion the price shock for farmers with fertiliser subsidy regimes.

supply either through local production or imports to meet the demand from approximately 94% of paddy farmers in Sri Lanka who use chemical fertilisers to grow paddy. While the import ban on chemical fertilisers was replaced by a license requirement in July 2021, threats remain in terms of ensuring food security, increasing farm incomes, and alleviating rural poverty. Against this backdrop, this policy brief evaluates the evolution of fertiliser policies in Sri Lanka and the role of chemical fertiliser and agrochemicals in ensuring food security.

16.2 Global Trends in Fertiliser Use

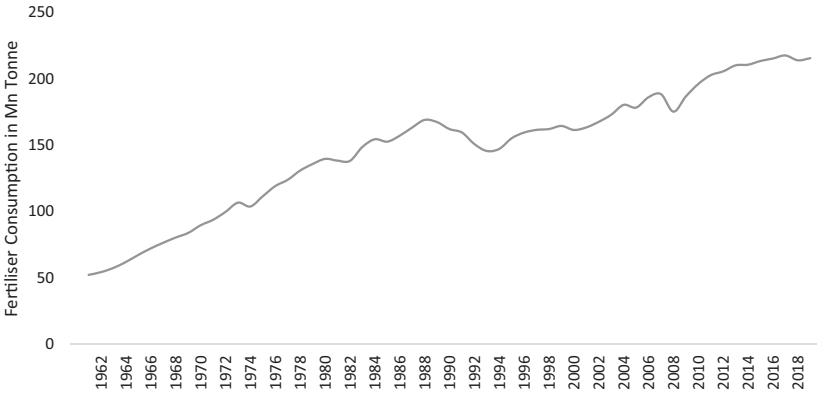
Chemical fertiliser is the main type of fertiliser used in agriculture systems in most countries. This is mainly because of its easier handling, ability to determine the exact amount of nutrients provided, and minimum fertiliser needed to provide the required nutrients. Globally, the three main fertiliser nutrients commonly used are nitrogen (N), phosphorus expressed as phosphate (P2O5), and potassium expressed as potash (K2O). The global demand for each of these three main fertilisers in 2015 and the estimated demand for 2016 to 2020 are provided in Table 16.1. The industry was expected to see an average annual growth rate of 1.9% by

Table 16.1
World Demand for Fertiliser Nutrient Use, 2015-2020 (Mn MT)

Year	2015	2016	2017	2018	2019	2020
Nitrogen (N)	110. 0	111. 6	113. 6	115. 4	117. 1	118. 8
Phosphate (P2O5)	41. 2	41. 9	43. 2	44. 1	45. 0	45. 9
Potash (K2O)	32. 8	33. 1	34. 0	34. 9	36. 0	37. 0
Total N+P2O5+K2O)	184. 0	186. 7	190. 9	194. 4	198. 1	201. 7

Source: Food and Agriculture Organization. (2017). *World Fertiliser Trends and Outlook to 2020.* Rome: Food and Agriculture Organization.

Figure 16.1
Global Fertiliser Consumption, 1961-2019



Note: Total fertiliser consumption is the sum of synthetic inputs of nitrogen, potassium and phosphorous (N, P2O5 and K2O, respectively), plus organic nitrogen inputs.

Source: Based on Our World in Data.org

2020. According to the Food and Agriculture Organization (FAO), synthetic nitrogen fertilisers are expected to increase worldwide by over 50% as of 2050.[3]

The consumption of chemical fertilisers varies substantially from one region to another globally. In Western Europe and North America, it has remained constant or declined slightly, but in East and South Asia, particularly in China and India, a dramatic increase is evident. Asia accounts for more than 60% of global fertiliser consumption and this is on the rise.[4] In fact, China has become the world's largest fertiliser consumer.

Since early 2022, global fertiliser prices have risen by nearly 30%, following a spike of 80% in 2021. The price hikes are attributed to numerous factors, such as rising input costs, supply disruptions caused by sanctions following the Russia-Ukraine war, and export restrictions imposed by some countries including global scale large suppliers such as China. Other supply-side drivers, such as the ongoing COVID-19-related bottlenecks in global value chains and the impacts of natural disasters on production centres have also disrupted the production and transportation of both fertilisers and fertiliser inputs. While urea prices have surpassed their 2008 peaks, prices of P2O5 and K2O are coming closer to 2008 levels (Figure 16.2). The war in Ukraine has raised concerns regarding fertiliser affordability and availability.

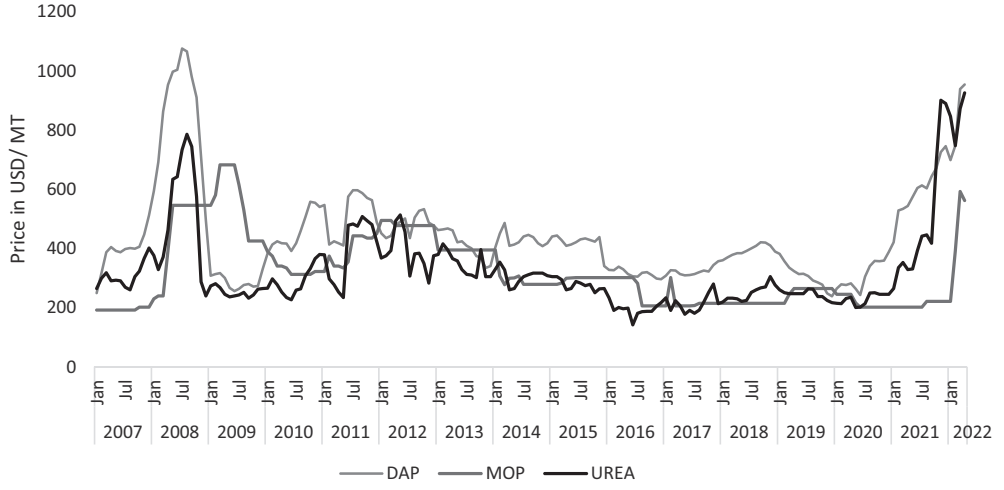
These higher prices are driving up recurrent expenses for governments, particularly when combined with fertiliser subsidies, impacting farmers worldwide. In developing and emerging countries, there will likely be attempts to cushion the price shock for farmers with fertiliser subsidy regimes. However, government budgets for most such countries are already stretched from significant COVID-19-related expenditures and may face pressures under further economic shocks.

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[3] Institute for Agriculture & Trade Policy. (2021). *New Research Shows 50 Year Binge on Chemical Fertilisers Must End to Address the Climate Crisis.* Retrieved February 08, 2021, from IATP: https://www.iatp.org/new-research-chemical-fertilisers

[4] Randive, K., Raut, T., & Jawadand, S. (2021). An Overview of the Global Fertiliser Trends and India's Position in 2020. *Mineral Economics, 34*(3), 371-384.

Figure 16.2
Global Fertiliser Prices in USD/MT



Note: DAP= Disammonium phosphate, MOP= Muriate of potash. Last observed data in 2022 April.
Sources: Bloomberg; World Bank.

16.3 Sri Lanka's Fertiliser Policy Issues

16.3.1 Evolution of Policies and Fertiliser Use

Since independence, successive Sri Lankan governments have pursued strategies for food and nutrition security and to enhance earnings from agricultural exports. These include expansion of irrigated land and intensification of farming with the use of modern varieties, requiring increased use of fertiliser and agrochemicals. Early interventions in the fertiliser sector included setting up government institutions to import and distribute fertiliser among farmers, allowing the private sector to import fertiliser under the control of the government and subsidising fertiliser inputs.[5] Since 1962, fertiliser subsidies were provided in various forms, with the main objective of making fertiliser available as cheaply as possible to encourage its wider use and thereby expand agriculture production.

Until 1975, various crops received different subsidies. Due to the unauthorised leakage of fertiliser between agricultural sub-sectors, this scheme was found to have failed. Thus, a uniform subsidy scheme was established in 1975 for all crop sectors. In 1989, the fertiliser subsidy was withdrawn as it was a heavy burden on the government budget. Following the elimination of fertiliser subsidies, the price of all subsidised fertilisers surged by about twofold. Nevertheless, the government's decision to increase the farm gate price of paddy helped farmers mitigate the adverse impact of the increase in fertiliser prices. The trend of rising farm gate paddy prices started in 1990 and continued through 1993. The farm

[5] Weerahewa, J., Senaratne, A., & Babu, S. (2021). *Reforming Fertiliser Import Policies for Sustainable Intensification of Agricultural Systems in Sri Lanka:* Is There a Policy Failure? (No. 2445-2022-883).

gate paddy prices fell by 13% in 1994 due to an expansion in marketable paddy surplus.

Several changes were then made to the fertiliser subsidy scheme from 1994, including the provision of the subsidy only to urea from 1997. In the late 1990s, the selling price was fixed to reduce the impact of price fluctuations on the farming community. The fixed price with variable subsidies did not facilitate fertiliser importation when world market prices were low. This issue was addressed by fixing the subsidy component and allowing the selling price to be determined by world market prices. Thus, as international fertiliser prices rose, farmers faced higher costs of production. In 2005, the subsidy was fixed at Sri Lankan Rupees (LKR) 23,000 per metric tonne (MT) of urea. A fixed price scheme was in place thereafter, which dictated that the price of a 50 kilogram (Kg) bag of urea will not change regardless of the world market price. In the aftermath of higher oil prices that lead to higher fertiliser prices, fertiliser subsidies were thus driving up recurrent expenses.[6]

In the 2013 Budget, the government slashed the fertiliser subsidy by 25% due to financial constraints, negative environmental externalities and food security considerations. The main reason for reducing the subsidy was to encourage farmers to use organic fertiliser more often. Despite this, paddy farmers complained about difficulties in switching to organic fertilisers at short notice and predicted that rice prices would surge. In 2014, the decision was revised and fertiliser subsidies were slashed to 10%. Efforts were made in 2016 to curtail expenditure by converting the subsidy into an equivalent cash grant scheme, but the effort lasted just two years. As of 2019, the rate of fertiliser subsidy for paddy farmers was approximately 86%, while it ranged from 48-88% for other crops.[7] Under the fertiliser subsidy programme, fertiliser was issued to farmers at a subsidised price of LKR 500 per 50 Kg bag in the 2019/2020 Maha season for all the crops. For the first time, paddy farmers whose lands cover an area of at least five acres were provided with free fertiliser from mid-2020.[8]

Figure 16.3a
Sri Lanka's Fertiliser Import Sources

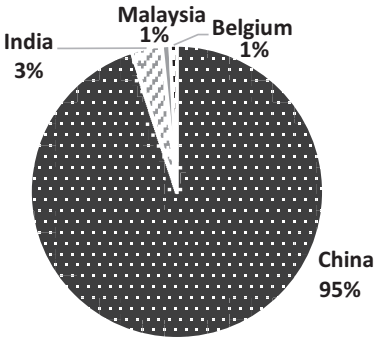
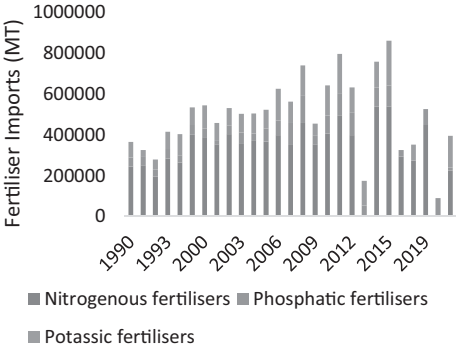


Figure 16.3b
Fertiliser Import Volumes



Source: Sri Lanka's fertiliser import data (Various years) based on Comtrade database.

[6] Thibbotuwawa, M. (2016). *Better Targeting of Transfers: The Fertiliser Subsidy.* Retrieved February 15, 2022, from Talking Economics: https://www.ips.lk/talkingeconomics/2010/08/16/better-targeting-of-transfers-the-fertilizer-subsidy/

[7] Weerahewa, J., Senaratne, A., & Babu, S. (2021). *Reforming Fertiliser Import Policies for Sustainable Intensification of Agricultural Systems in Sri Lanka:* Is There a Policy Failure? (No. 2445-2022-883).

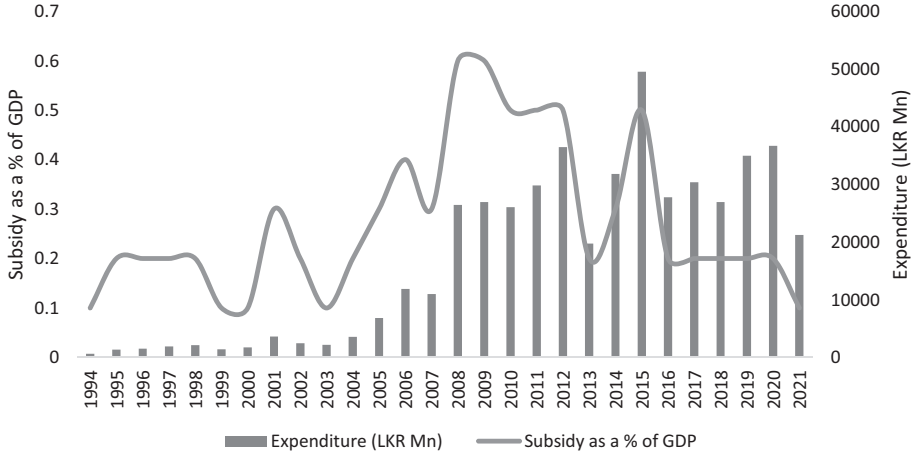
[8] *Ibid*.

Sri Lanka's experience shows that ad-hoc policy changes and policy uncertainty have been customary in the fertiliser sector, and these have not been successful in curbing chemical fertiliser use and promoting organic fertilisers.

The policy change to prohibit the importation of chemical fertilisers, pesticides, and herbicides was announced in May 2021. In July 2021, the import ban on chemical fertilisers was replaced by a license requirement. The aim of limiting and/or banning the importation of fertiliser and agrochemicals was twofold: to generate significant import cost savings for the country and to become 100% organic in agriculture. However, Sri Lanka's experience shows that ad-hoc policy changes and policy uncertainty have been customary in the fertiliser sector and these have not been successful in curbing chemical fertiliser use and promoting organic fertilisers.

Sri Lanka is dependent on imports for its chemical fertiliser needs, with China as the primary source, whilst nitrogen fertiliser consists of more than 50% of total fertiliser imports into the country (Figure 16.3a). Reportedly, the highest amount of total fertiliser import occurred in 2015, but after 2016 (Figure 16.3b), Sri Lanka imported comparatively lower chemical fertiliser quantities as the government converted the subsidy into a cash grant.

Figure 16.4
Government Expenditure on Fertiliser Subsidy



Source: Based on Central Bank of Sri Lanka, Annual Reports (Various years).

The government's rash ban on chemical fertilisers and agrochemicals has drawn harsh criticism owing to its impacts on agriculture, farmer incomes and food security.

Expenditure on Sri Lanka's fertiliser subsidy has varied over the years due to fluctuating harvesting patterns associated with climatic conditions, and settlement of arrears from prior years (Figure 16.4). Since the 1990s, an average of around 0.3% of gross domestic product (GDP) has been spent on fertiliser subsidy programmes.

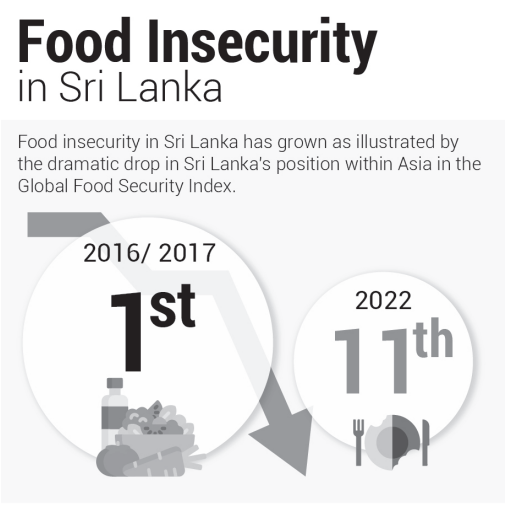
16.3.2 Impact of the Fertiliser Ban on Food Systems

The government's rash ban on chemical fertilisers and agrochemicals to introduce an organic fertiliser policy has drawn harsh criticism owing to its impacts on agriculture, farmer incomes and food security in the country. Farmers were unable to gain access to and apply enough fertiliser to their cultivations in the subsequent productions seasons.

Many crops yield poor harvests both in terms of volume and quality if necessary amounts of fertiliser are not applied at the appropriate time (Table 16.2). Tea and paddy production has already shown the negative impacts of the ban. The immediate impacts of these production losses have also been felt through price hikes, contributing to Sri Lanka's galloping food inflation. These developments have threatened the

Impacts of the
Fertiliser Ban on Food Systems





country's food security,[9] evidenced by the fact that by mid-2022, Sri Lanka was at 11th position in the Food Security Index for Asia, down from first place in 2016-2017.[10]

The fertiliser ban has had a sizeable adverse impact on Sri Lanka's paddy cultivation. Over the last few decades, paddy production had expanded considerably due to the expansion of irrigation coverage, cultivation of high-yielding varieties and the increased use of fertilisers. According to estimates, typically, around 94% of paddy farmers relied on chemical fertilisers for paddy production.[11] As a result, since the 1960s, paddy productivity has improved over time in both Yala and Maha seasons (Figure 16.5b).

With the chemical fertiliser ban, it was predicted that the average yield of paddy can drop by 30% approximately if chemical fertilisers are fully replaced by organic fertilisers; paddy farming profitability was assumed to be reduced by 33% due to this productivity loss.[12] However, in 2021, during the Yala season, a considerable production

Table 16.2
Estimated Yield Losses of Main Agriculture Sectors due to the Ban

Crop	Estimated Yield Loss
Paddy	30-35%
Tea	50%
Maize	50%
Potato	30-50%
Sugarcane	30-40%
Cinnamon	25%
Betel	20%
Upcountry vegetables	30-50%
Floriculture/foliage plants	100%
Protected agriculture/hydroponics	100%

Source: National Science Foundation. (2022). *Estimated Yield Losses in Agriculture.* Colombo: National Science Foundation.

[9] Koralagama, D., & Udugama, M. (2022). *Sri Lanka: Food Security Impacted by Flawed Economic Policies.* Retrieved March 01, 2022, from Observer Research Foundation: https://www.orfonline.org/expert-speak/sri-lanka-food-security-impacted-by-flawed-economic-policies/

[10] Indrakularasa, T. (2022). *Food Crisis Looms as Rice Production Nosedives.* Retrieved March 08, 2022, from Global Press Journal: https://globalpressjournal.com/asia/sri_lanka/food-crisis-looms-rice-production-nosedives/

[11] James, C. (2022). *Sri Lanka Resurfaces as Major Rice Buyer as Fertiliser Import Ban Leads to Output Decline.* Retrieved February 22, 2022, from spglobal: https://www.spglobal.com/commodityinsights/

[12] Ramakumar. R. (2021). *Rajapaksa's Experiment with Organic Farming in Sri Lanka A Warning to Developing Countries.* Retrieved March 06, 2022, from The Print: https://theprint.in/opinion/rajapaksas-experiment-with-organic-farming-in-sri-lanka-

decline could not be observed as an average yield of 4,309 Kg per net hectare (Ha) was seen,[13] to produce a total yield of 2 million (Mn) MT. In that season, the sown area was 501,467 Ha (out of a total of 708,000 Ha) while the harvested area was 496,741 Ha. The reason for not seeing a huge production loss was that with the chemical fertiliser ban, some farmers used their remaining fertiliser stocks to continue their paddy farming in 2021. However, sufficient fertiliser quantities were not available to cultivate during the 2021/2022 Maha season that year. Therefore, the entire crop production suffered, leading to crop failures due to a lack of chemical fertiliser, especially urea for paddy cultivation.

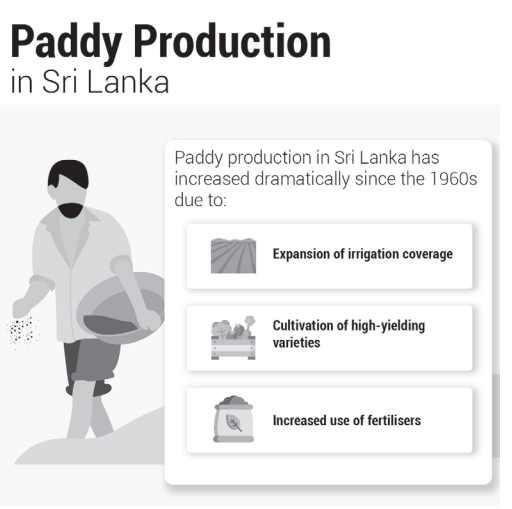


Figure 16.5a
Paddy Production, by Paddy Lands

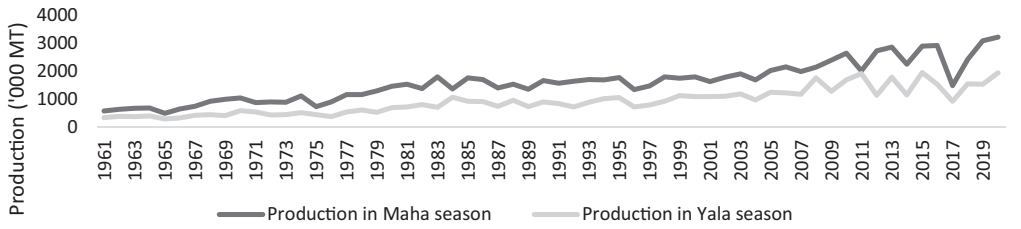
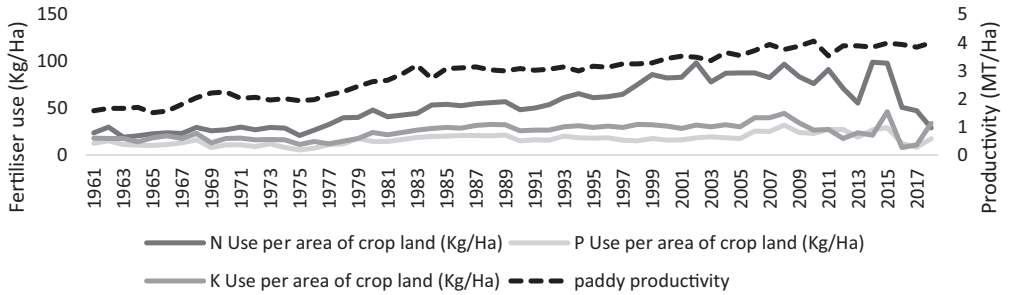


Figure 16.5b
Paddy Productivity and Annual Nutrient Use, by Paddy Lands

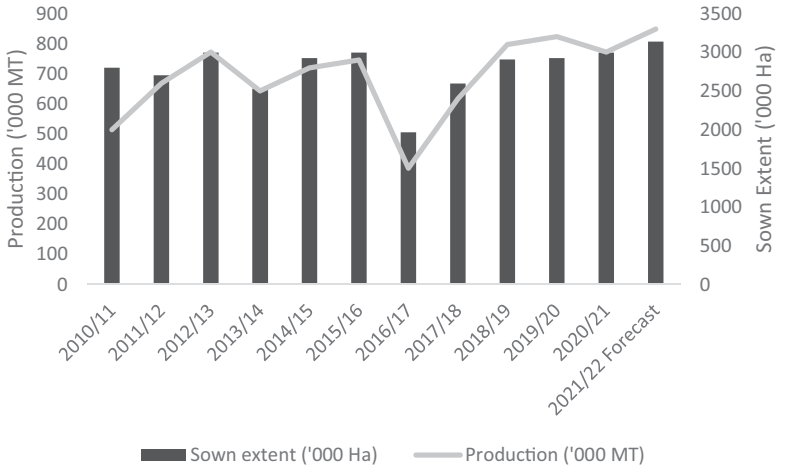


Note: N= Nitrogen, P=Phosphorus, K=Potassium

Source: The World Bank IBRD-IDA data (Various years) and Agriculture census and statistics data (Various years).

[13] United Nations Sri Lanka. (2022). *Sri Lanka Food Security Crisis.* Retrieved March 17, 2022, from Reliefweb: https://reliefweb.int/report/sri-lanka/sri-lanka-food-security-crisis

Figure 16.6
Trends of Paddy Sown Extent and Production in Maha Seasons



Source: Based on Crop Forecast Maha Season 2021/2022, Department of Agriculture.

Also, as the steep price hike of a 50 Kg urea sack rose from United States Dollars (USD) 16 in 2021 to USD 140 in mid-2022, the importation of urea was quite challenging. The Department of Agriculture predicted a yield of 807,000 MT for the 2021/2022 Maha season (Figure 16.6). However, as predicted, the loss of production of paddy was within the range of a staggering 40-50% during the 2021/2022 Maha season. The decline in production will have a ripple effect on the ongoing 2022 Yala season owing to the unavailability of sufficient fertilisers on time and high prices of fertilisers. It is estimated that only 24% of the usually cultivated land (or 128,652 out of 524,778 Ha) had been sown for the above season.

Since the local production is insufficient to cater to the country's rice requirement, Sri Lanka has sought to import rice from foreign sources such as Myanmar, India, Pakistan, and China. In this setting, about 185,000-196,000 MT of rice per month is required.[14] Rice imports jumped sharply

Although global tea production may revert roughly to 2% growth in 2022, highlighting improved production prospects, Sri Lanka has become an exception due to its withdrawal of chemical fertiliser.

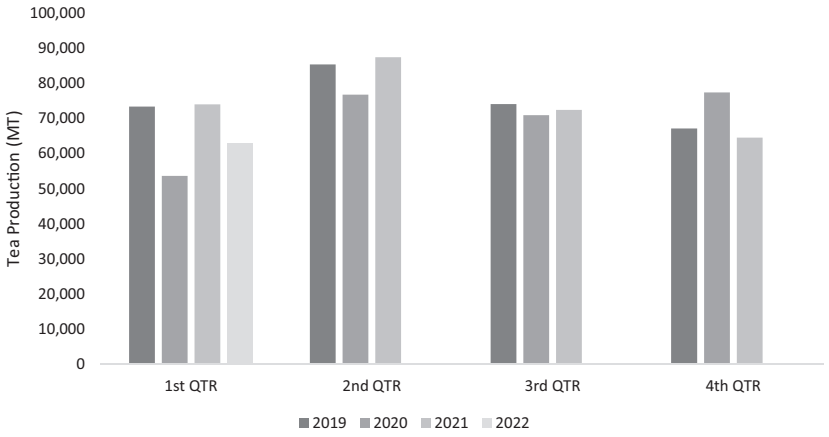
[14] Dias, S. (2022). *Maha Season Harvest to Drop by 40%.* Retrieved April 09, 2022, from Sunday Times: https://www.sundaytimes.lk/220320/business-times/maha-season-harvest-to-drop-by-40-476808.html

from 15,770 MT in 2020 to 147,091 MT in 2021; up to May 2022, the State Trading Corporation was supposed to import up to 100,000 MT of white rice from Myanmar and 200,000 MT of parboiled rice and 100,000 MT of white rice from India.[15] A sum of USD 92 Mn has been spent by the government for this purpose.

Another badly affected sector due to the fertiliser ban is the tea industry. It has not only affected the growers and factories, but also many others who are indirectly involved in the industry. The immediate change in the availability of fertilisers resulted in difficulties for growers, especially smallholders, who contribute 70% of national production and depend on this income to make a living. Yields for tea, which accounted for more than 11% of Sri Lankan exports in 2020, fell to their lowest in 23 years in 2022 due to the ban on chemical fertilisers. Although global tea production may revert roughly to 2% growth in 2022, highlighting improved production prospects,[16] Sri Lanka has become an exception due to its withdrawal of chemical fertiliser. In 1Q 2022, the export income loss of about USD 73 Mn was due to the decline of 4 Mn Kg in finished tea production (Figure 16.7). With the lifting of the ban, some degree of recovery is expected to commence in 2Q 2022, provided extreme weather conditions are not experienced.

Even though a production drop is directly observed from the given yields, other indirect impacts on the tea industry are difficult to observe. One such impact is the export restrictions that may occur due to the quality loss. For instance, compost fertiliser made from urban wastes instead of chemical fertilisers can be a matter of concern if it contains high levels of heavy metals. As a result of the application of these compost mixtures, residues of high metals in produced tea can compromise product quality. Such products will be rejected in the international market, further reducing the credibility and market demand for

Figure 16.7
Quarterly Tea Production in Sri Lanka in MT



Source: Based on Sri Lanka Tea Board, Monthly Statistics (Various years).

[15] James, C. (2022). *Sri Lanka Resurfaces as Major Rice Buyer as Fertiliser Import Ban Leads to Output Decline.* Retrieved February 22, 2022, from spglobal: https://www.spglobal.com/commodityinsights/

[16] Tea Sri Lanka. (2022). *Sri Lanka Tea Production.* Retrieved March 16, 2022, from Tea Sri Lanka: https://teasrilanka.org/market-reports

'Ceylon Tea'. Tea buyers always expect exporters/ producers to comply with relevant quality standards of tea which can be easily affected by the agrochemicals and type of fertilisers used, and production techniques, among many other factors. Recently, after the fertiliser ban, one of Sri Lanka's key buyers, Japan, substantially reduced its purchase of Ceylon Tea by 42% in 2022.[17] The sector experts believe that one of the key reasons for this reduced purchase is the quality and quantity losses caused by the ban. The loss of Sri Lanka's market share to Japan for tea is not the first time as the country faced a similar situation in 2018 when glyphosate was banned.

16.4 International Experience in Organic Fertiliser Policies

Globally, many of the endeavours presented by agronomists and researchers have not been aimed at eliminating chemical fertilisers; instead, they have suggested various policy measures to find a balance between chemical fertilisers and organic fertilisers. The aim is to systematically implement the necessary policy measures to support organic agriculture, where reducing the use of chemical fertilisers will not reduce the current crop yield or the income of farmers. In this way, several countries have gradually decreased the use of chemical fertilisers and integrated organic agriculture practices into their agri-food systems.

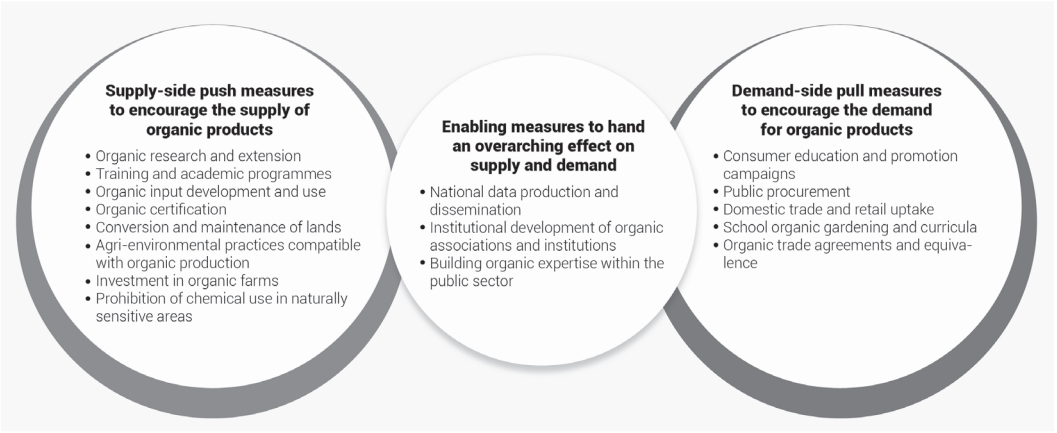
According to the International Federation of Organic Agriculture Movements (IFOAM)-Organics International Global Policy Toolkit,[18] designing the most effective policy mix for the organic sector for a specific country should be based on an in-depth study of the particular situation, and development stage of the organic sector. Further, it should consider the overall agricultural policy framework and the objectives and attitudes of the local decision-makers. Such a tool for any country on organic agriculture is intended for use by policymakers on how governments should support organic agriculture.

Globally, many of the endeavours presented by agronomists and researchers have not been aimed at eliminating chemical fertilisers; instead, they have suggested various policy measures to find a balance between chemical fertilisers and organic fertilisers.

[17] Dias, S. (2022). *Japan "Drops" Buying Ceylon Tea.* Retrieved March 07, 2022, from Sunday Times: https://www.sundaytimes.lk/220501/business-times/japan-drops-buying-ceylon-tea-481174.html

[18] Katto-Andrighetto, J., Bowen, D., Varini, F., D'Amico, S., Kirchner, C., Arbenz, M., ... & Gould, D. (2017). *Guidelines for Public Support to Organic Agriculture.* Bonn: IFOAM-Organics International.

Effective Policy Mix
for Organic Agriculture



Source: Katto-Andrighetto, J., Bowen, D., Varini, F., D'Amico, S., Kirchner, C., Arbenz, M., ... & Gould, D. (2017). Guidelines for Public Support to Organic Agriculture. IFOAM-Organics International.

These policy measures include supply-side push measures and demand-side pull measures that can be implemented to set up policies and action plans regarding organic agriculture.

Notably, some countries have effectively implemented fertiliser policies that provide lessons for other countries. The state of Sikkim in India is the first state globally that has achieved full organic status, following a decade of pro-active organic policy intervention. The commitment towards organic agriculture in this state started in 2003 and was achieved by 2015. In Cuba, the organic revolution was not only a change in government policy but also a shift from rural to urban approaches, introducing urban space into the agricultural reality rather than relying on the traditional rural space. While Bhutan intended to phase out the use of chemical fertilisers and pesticides to become 100% organic by 2020, since achieving the above target proved has been impractical, the country has now set a fresh target of 2035. China has identified that reforms in chemical fertiliser usage with a mix of policy instruments, including education, regulations, demonstration, and targeted economic incentives are needed to lead to an integrated nutrient management policy based on three pillars; food security and farmers' income, resource use efficiency and environmental sustainability. It is clear from the above details that the chemical to organic conversion cannot be achieved by an immediate ban on chemical fertilisers; instead, it needs a long-term commitment with a gradual transformation process driven by a mix of policy instruments. Looking at the global experiences, Sri Lanka has a variety of options to improve yields and protect the environment while promoting farm production.

16.5 Way Forward

A range of risks related to fertiliser availability and affordability is envisaged, and these risks can usually be very high in low and middle-income countries (MICs). The risks associated with rising fertiliser prices are attributed to numerous factors, such as rising input costs, supply disruptions caused by sanctions, and export restrictions in the world. Low and MICs with heavy fertiliser subsidies face significant additional fiscal pressures, already stressed

Trying to become the world's first country to become 100% organic by banning all synthetic fertilisers overnight impacts sustainable agriculture as it negatively affects food security in the country.

by substantial government outlays during the COVID-19 pandemic. Sri Lanka also faces the same scenario, but of a much bigger magnitude amidst a worsening economic crisis. The ban on chemical fertilisers adversely affected the country's agri-food systems, adding to the unfolding crisis.

The use of chemical fertilisers can be minimised but not completely stopped. Reducing the current rate of application of chemical fertilisers and shifting to organic farming cannot be done overnight. It must be achieved in steps at the grower level. Therefore, trying to become the world's first country to become 100% organic by banning all synthetic fertilisers overnight impacts sustainable agriculture as it negatively affects food security in the country.

A Mix of Strategies and Innovative Approaches

To soften these impacts, the government and the farmers have to take several immediate steps to ensure food and nutrition security. As the most important immediate strategy, the government should take into account available stocks of organic fertilisers in the country and prioritise the importation of sufficient chemical fertilisers to fill the gap between available fertilisers and requirements. Also, due to the high cost of fertiliser in the world market, farmers will not be able to purchase fertiliser without a subsidy. Therefore, it is vital to continue the fertiliser subsidy on a targeted and prioritised basis. Other than these, the country must explore the nature and potential contributions of agroecological and other innovative approaches to facilitate the transition to sustainable food systems amidst the lack of chemical fertilisers. Sri Lanka can adopt a mix of strategies and innovative approaches to address issues related to fertiliser policy, fertiliser recommendation and applications. These include designing effective fertiliser policies and comprehensive well-structured national organic agriculture action plans; gradual inclusion of organic practices to improve agriculture productivity, avoiding overuse of chemical fertilisers and applying modern agro-technological methods to use synthetic nutrients.

Designing Effective Fertiliser Policies and Comprehensive Well-Structured National Organic Agriculture Action Plans

Instead of a sudden shift towards an organic farming system, the most important solution is to develop a comprehensive and well-structured

Policymakers and other stakeholders must be encouraged to adopt a more comprehensive and strategic plan and, therefore, a more practical approach to organic support than leaving a single policy measure to be adopted in isolation.

action plan. Even though such a plan takes time and some resources, it encourages an analytical starting point, within the current context of the domestic agriculture sector. One of the recommended strategies is to support and strengthen existing measures while addressing the issues of the local situation by implementing the correct mix of supply-side push measures and demand-side pull measures. This is more appropriate than implementing a policy statement without actions. Therefore, it is necessary to encourage policymakers and other actors in the sector to adopt a more comprehensive and strategic plan, and therefore a more effective approach to organic support than leaving a single policy measure to be adopted in isolation.

Gradual Inclusion of Organic Practices to Improve Agriculture Productivity

In Sri Lanka, the agricultural lands have relied heavily on pesticides and inorganic fertilisers. Converting these types of lands into organic status is of great concern; hence, it takes time to rebuild soil structure and soil health with compost, manure, and other organic fertilisers. Therefore, this conversion is a time of change for both the land and the farmer, and hence, it needs long-term well-structured conversion planning. According to the United States Department of Agriculture (USDA) standard, conventional farmers have to use organic methods for at least three years before calling it organic agriculture. Therefore, instead of making the country fully organic, promoting and popularising organic agriculture in targeted sectors is important, as it opens avenues for export potentials and as a solution for the issue of negative externalities on the environment.

A mix of organic and inorganic fertilisers is the best option to meet sustainable agriculture goals.

Mobile phone applications can be developed to help farmers optimise the amount and timing of fertiliser applications.

For the whole agriculture sector, zero chemical fertiliser is not the optimum solution. A mix of both organic and inorganic fertilisers is the best option to meet sustainable agriculture goals.

Avoid Overusing Chemical Fertilisers and Apply Modern Agro-technological Methods to Improve Crop Productivity

At present, chemical fertiliser application is not efficient in Sri Lanka. In agriculture, the fertiliser requirements may differ depending on the soil conditions, topography and residuals from previous applications. However, many farmers apply fertiliser evenly, sometimes following outdated recommendations from extension services or their desires. A site-specific nutrient management approach has been developed as a result. In this method, N, P2O5 and K2O are optimally applied to the crop according to the plant requirements. Researchers have found that this approach made N use more efficient. Fertilisers in the form of nanomaterials can also minimise nutrient losses through the slow and controlled release of nutrients. This, in turn, can improve yield through resource optimisation and lessen environmental costs by preventing the overuse of fertilisers. As another recommended strategy, mobile phone applications can be developed to help farmers optimise the amount and timing of fertiliser applications.

Announcing a policy and expecting farmers to abide by a policy does not work. In other words, implementing a government regulation without supportive measures to promote organic development is like putting the cart before the horse. Therefore, a sudden shift away from conventional agriculture can create a triple shock of decreased productivity, income losses, and a reduction in the supply of food to the market, at least in the short run. A prudent approach to dealing with these shocks includes anticipating them and taking appropriate measures so that millions of small farmers and agricultural workers, living on the edge of poverty, would not be adversely affected by disruptions to meet the basic needs of income and food security.

Themes of the "Sri Lanka: State of the Economy Reports"

1992	Macroeconomic Policy
1993	Export Sector
1994	Agriculture Sector
1995	Poverty Alleviation
1996	Workers' Charter
1997	Private Sector Expansion
1998	Demographic Change and Social Safety Nets
1999	Free Trade in South Asia
2000	Plantation Sector
2001	Competition Policy and Regulations
2002	Agriculture Sector
2003	Garment Sector
2004	Land Policy
2005	Post-Tsunami Economic Issues
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2011	Post-conflict Growth and Recovery
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2022	From Crisis to Recovery: Driving Policy Action Through SDGs

Sri Lanka: State of the Economy 2022
From Crisis to Recovery: Driving Policy Action through SDGs

Sri Lanka's economy faces its harshest economic downturn in 2022 as it seeks to adjust to a severe bout of macroeconomic instability. In April 2022, the country announced its intentions to default on foreign debt settlements in the face of dwindling foreign reserves and acute shortages of imported essentials. The shortages, amidst galloping cost of living pressures, generated widespread public and social unrest in the country.

Policy adjustments to restore macroeconomic stability will result in a painful period of economic hardship in the medium term. The most crucial will be to establish sustainable fiscal frameworks and targets. Tax increases and spending cuts will limit the government's ability to support lower-income households that are disproportionately impacted by high inflation. For any recovery to be equitable and sustained, Sri Lanka must pay renewed attention to pursuing a development framework that prioritises the well-being of its most vulnerable and disadvantaged population groups.

IPS' annual flagship report *Sri Lanka: State of the Economy 2022,* analyses the most critical socioeconomic issues facing Sri Lanka through the framework committed to under the Sustainable Development Goals (SDGs) to drive policy action for economic recovery and social stability.

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