

Sri Lanka
State of the Economy Report 2011

Chapter 11
Driving Infrastructure Development for Inclusive
Growth

by
Nethmini Perera

11. Driving Infrastructure Developments for Inclusive Growth

11.1 Introduction

An accelerated infrastructure development thrust lies at the core of Sri Lanka's post-conflict economic programme. Whilst infrastructure spending is undoubtedly beneficial in providing the initial momentum to economic growth, the inclusiveness of the infrastructure development - where different agents are given equal opportunities to participate in development activities, while allowing the benefits of such developments to be equitably shared among various social groups - will to an extent, determine the sustainability of the growth process in the longer term.

Infrastructure projects currently carried out in Sri Lanka are spread across provinces, with special attention being given to the previously conflict-affected N&E. Provision of adequate infrastructure for lagging regions is critical not only to tap unutilized resources but also to bridge existing regional disparities in socio-economic development. International experience also suggests the importance of focusing not only on 'how much' but also 'where', in addressing infrastructure needs.¹ Inadequate infrastructure is identified as a key factor in the unequal distribution of gains from economic growth, calling for policies that centre on inclusiveness to reach balanced regional development.²

This discussion attempts to look at the distribution of infrastructure developments across regions in Sri Lanka, and thereby to assess infrastructure policy in terms of ensuring inclusivity in economic growth. It focuses specifically on rural infrastructure development initiatives and the status of the developments

“Bringing the multiple rural infrastructure development programmes under one arm would ensure balanced development across regions”

¹ Estache, A., and Fay, M., 2007, “Current Debates on Infrastructure Policy”, Policy Research Working Paper Series 4410, World Bank, Washington, D.C.

² Li, W., T. Mengistae and L.C. Xu, 2011, “Diagnosing Development Bottlenecks: China and India”, World Bank Policy Research Working Paper Series; Joshi, G.S., 2010, “Infrastructure Development Strategies for Inclusive Growth: India’s Eleventh Plan”, *Leadership and Management in Engineering*, Vol. 10, No. 2, American Society of Civil Engineers.

of different sub-sectors of infrastructure across regions in the country.

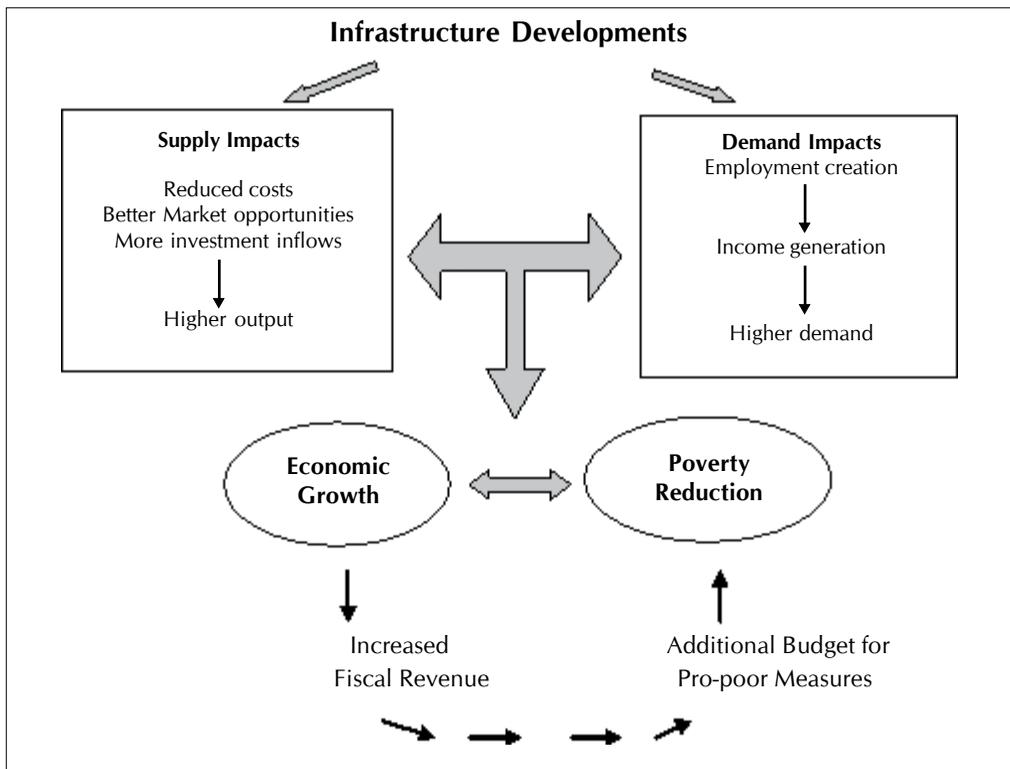
11.2 Role of Infrastructure in Inclusive Growth and Poverty Reduction

Sustainable infrastructure development has a direct impact on accelerating rural and urban livelihood improvement. This can propel a country towards an inclusive growth path where the gains of economic development trickle down to all layers of the society as their full potential is utilized in the national development process. Alongside stimulating growth in lagging areas, improving integration between lagging and leading

areas - where infrastructure plays an important role - is vital for economic progress.³

The impact of infrastructure on economic growth and poverty reduction takes the form of first-round effects, followed by subsequent impacts.⁴ In the first round, both supply and demand sides of the economy are impacted through an enhanced business climate. Roads and irrigation infrastructure have shown to directly improve the incomes from agriculture and non-farm activities, and living standards of the poor, while electricity has proven to create employment through the establishment of industries in the areas.⁵ The social

Figure 11.1
Impact of Infrastructure on Economic Growth and Poverty Reduction



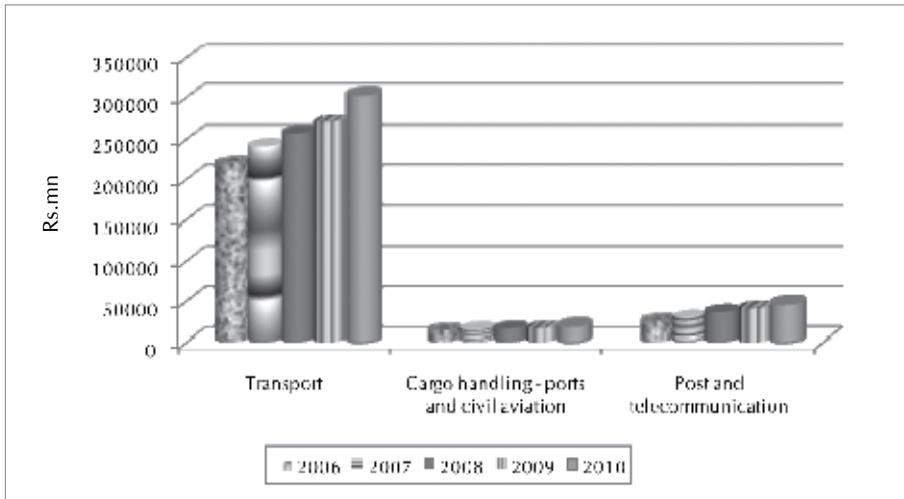
Source: Jahan, S. and R. McCleery, 2005, *Making Infrastructure Work for the Poor*, UNDP.

³ World Bank, *World Development Report 2009: Reshaping Economic Geography*, World Bank, Washington, D.C.

⁴ Jahan, S. and R. McCleery, 2005, *Making Infrastructure Work for the Poor*, UNDP.

⁵ Ali, I., and E. M. Pemia, 2003, "Infrastructure and Poverty Reduction - What is the Connection?", ERD Policy Brief Series, Asian Development Bank, Manila.

Figure 11.2
Contribution of Transport and Communication to GDP



Source: CBSL, Annual Report 2010.

dimension of better infrastructure is the increased access to basic social services that improve the living conditions of the poor. The subsequent effect of infrastructure development arises when growth increases fiscal revenue, resulting in additional budget being generated for programmes that improve the living conditions of the poor.

Although infrastructure improvements affect the overall functioning of the economy, the impact of some infrastructure sectors on the domestic output can be specifically identified. Since Sri Lanka's accelerated infrastructure development drive commenced in 2006, the performance of the transport, cargo handling and post and telecommunication sub-sectors has been significant (Figure 11.2). During 2006-10, these three sub-sectors have recorded a growth of 37 per cent, 37 per cent, and 88 per cent, respectively. The transport and cargo handling sectors have grown at an annual average rate of 8.2 per cent and 8.5 per cent, respectively, well above the country's overall rate of GDP growth. In 2010, the sectors recorded a growth of 11.4 per cent and 16.8 per cent, reflecting the benefits of a post-conflict environment as well as the

overall economic recovery from the downturn of 2009. Clearly, increased output holds the potential to create wider employment opportunities and impact positively on poverty reduction.

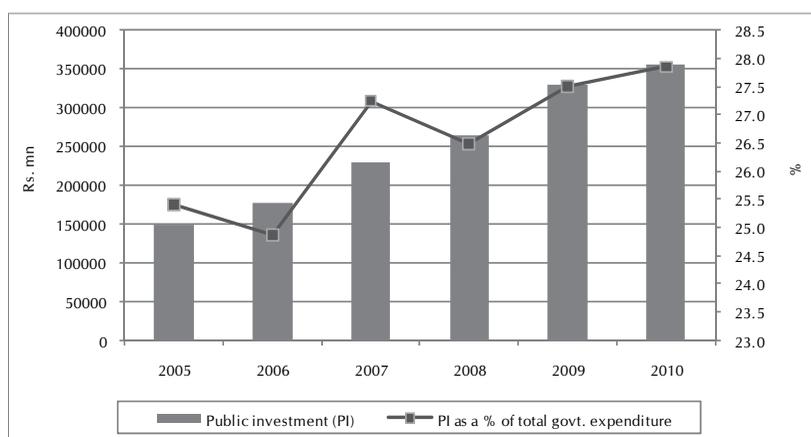
11.3 Infrastructure Development and Inclusive Growth in Sri Lanka

One of the major thrusts of Sri Lanka's present development strategy is to strengthen the 'village' as a dynamic and sustainable growth centre that can effectively contribute to the national growth process. This is equally highlighted in the infrastructure development measures. An assessment of whether these infrastructure facilities are adequately distributed across regions without being concentrated in already economically active districts is important.

11.3.1 Policy on Infrastructure Development

Sri Lanka's current infrastructure policy aims to accommodate broader regional and rural development policies and poverty alleviation efforts. 'Randora' is carried out at the national level covering development of roads,

Figure 11.3
Public Investment



Source: Ministry of Finance and Planning, *Annual Report*, various issues.

electricity, water supply and sanitation, and ports and aviation, while the corresponding infrastructure projects at the regional level are carried out through the 'Maga Neguma' and 'Gama Neguma' programmes.

As evident from Figure 11.3, the government's priority on infrastructure spending is clear. Public investment as a percentage of GDP which stood at 6.8 per cent in 2009 was maintained at 6.4 per cent in 2010. During 2005-10, public investment has more

than doubled, at a rate faster than the increase in total expenditure, and remains above one-fourth of the total government expenditure.

Allocations among different sectors of infrastructure also reflect a significant change over time, with the share spent on roads and bridges, electricity, ports and aviation, and specifically for rural infrastructure being higher in 2009 compared to 2006. However, the share of spending on social infrastruc-

Table 11.1
Sector-wise Public Investments (Rs.mn)

Sector	2006	% Share	2009	% Share
Roads and bridges	25,871	14.6	85,146	25.8
Electricity	4,484	2.5	32,852	9.9
Ports and aviation	5,731	3.2	28,332	8.6
o/w ports	191	0.1	25,425	7.7
Irrigation	7,329	4.1	14,207	4.3
Agriculture and production	9,474	5.3	14,512	4.4
Water supply	17,944	10.1	22,514	6.8
Education	17,200	9.7	16,934	5.1
Health	13,969	7.9	12,664	3.8
Rural infrastructure	16,222	9.1	57,000	17.2
Transport (railway/CTB)	7,586	4.3	11,247	3.4
Administrative/police/judicial/other	51,470	29.0	8,102	2.5
Total	177,443	100.0	330,448	100.0

Source: Ministry of Finance and Planning, *Annual Report 2009*.

ture - e.g., health and education - has declined over the same period. Although 'hard' economic infrastructure such as roads and bridges bring about an immediate boost to the economy, the importance of improved education and health in the long run must not be forgotten.

11.3.2 National Level Infrastructure Development

National level infrastructure requirements are identified, planned and implemented under the Randora programme encompassing both economic and social infrastructure. Prominence is given to maintain and rehabilitate the existing road network under the 'National Road Master Plan' focusing on the construction of expressways and highways, widening of highways, reduction of traffic congestion, road maintenance and rehabilitation, bridge rehabilitation and reconstruction, land acquisition and resettlement of affected people.

Sectors with potentially high returns such as electricity, and ports and aviation have attracted more foreign financing while rural and social infrastructure seems to have received less emphasis (Table 11.2). Focusing on these areas will be equally important to achieve balanced development. The emphasis on road development is largely derived from the desire to establish a high quality road network connecting the regions with the centre, which can trigger regional investments, both domestic and foreign. Transport improvements such as Colombo-Kandy expressway suggests a reduction of island-wide transport costs by 20 per cent.⁶ Rehabilitating railways, restructuring of the state bus service and addition to train and bus fleet are carried out under transport sector developments. State bus service and railways account for 23 per cent and 6 per cent, respectively, of passenger transport in the country.⁷ The developments are aimed at making the state bus service operation efficient while allowing fair competition

Table 11.2
Funding for Infrastructure (Rs.mn)

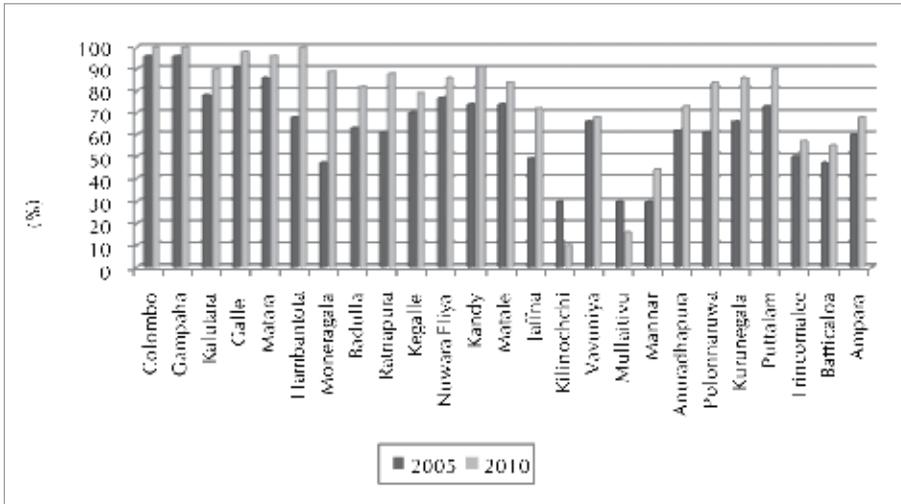
Sector	Domestic	Foreign
Economic		
Roads	118,693	275,685
Electricity	33,409	264,656
Water supply & sanitation	23,439	56,021
Ports and aviation	59,640	144,016
Transport	24,795	99,150
Rural infrastructure	23,798	11,919
Irrigation	18,392	48,730
Social		
Health	9,788	13,953
Education	16,200	16,170

Source: Randora National Infrastructure Development Programme/Mahinda Chinthana: Ten Year Horizon Development Framework 2006–2016.

⁶ World Bank, 2010, *Sri Lanka: Reshaping Economic Geography*, World Bank, Washington, D.C.

⁷ Ministry of Finance and Planning, 2008, *'Randora' National Infrastructure Development Programme*.

Figure 11.4
Electrification Level in Sri Lanka (%)



Source: Ministry of Power and Energy and Ministry of Finance and Planning, *Annual Report*, various issues.

between private and state buses in a passenger-friendly manner. The benefits of transport infrastructure improvement are significant for rural communities whose use of private vehicles is limited.

The power sector aims to achieve 100 per cent electrification by 2012 through the development of infrastructure and facilities to remote and distant locations by connecting to the national grid or other energy sources. Presently, 85 per cent of the population has access to electricity through the national grid, 3 per cent by alternative energy sources (solar and micro hydro projects), while 12 per cent are left with no access to electricity.⁸ Areas to which the extension of the national grid is unfeasible are planned to be provided with renewable energy technologies through the 'Grama Shakthi' programme. The N&E and some poverty stricken districts such as Moneragala and Badulla continued to record low levels

of electrification (Figure 11.4). Promotion of alternative sources in these areas will better cater towards livelihood development due to their affordability, while easing the burden on the economy as a whole by reducing dependence on oil-based power generation. 120,000 solar power projects and 10,000 village micro-hydro projects have been completed across the country under Grama Shakthi.⁹

Considering Sri Lanka's potential for international trade and tourism due to its unique strategic geographic location, port and aviation infrastructure development is being carried out as a priority. The expansion in ports and airports will undoubtedly create direct employment opportunities that can be exploited by the youth, especially in the lagging regions. Trainings for youth, specifically targeting employment related to planned developments, would maximize available opportunities.

⁸ Ministry of Power and Energy, <http://www.power.lk/>.

⁹ *Ibid.*

Box 11.1
Gama Neguma Programme

The allocation to the N&E has been increasing over the years, indicating the priority afforded to the region after the end of the conflict. By end 2009, the N&E (excluding Mullaitivu and Kilinochchi) accounted for around 13.8 per cent of the total allocation.

Gama Neguma Performance

District	Govt. Expenditure (end 2009) (Rs. mn.)	Beneficiaries (2008-09)	District	Govt. Expenditure (end 2009) (Rs. mn.)	Beneficiaries (2008-09)
Ampara	784	1,009,765	Kurunegala	2,260	845,648
Anuradhapura	1,388	1,164,820	Mannar	293	42,612
Badulla	1,080	422,323	Matale	730	348,935
Batticaloa	769	775,741	Matara	1,135	291,040
Colombo	763	181,956	Moneragala	1,113	537,331
Galle	1,616	919,625	N'Eliya	932	1,411,457
Gampaha	1,403	437,549	Polonnaruwa	579	395,736
Hambantota	1,029	434,150	Puttalam	1,062	276,528
Jaffna	563	212,743	Ratnapura	1,132	432,593
Kalutara	1,286	278,923	Trincomalee	571	319,570
Kandy	1,095	391,398	Vavuniya	156	71,004
Kegalle	903	330,516			

Source: Ministry of Nation Building and Estate Infrastructure Development.

The highest number of beneficiaries is recorded in Nuwara Eliya, the district with the highest poverty headcount. Nuwara Eliya, Moneragala, Ratnapura, Badulla, Kegalle and Matale – the six districts recording the highest poverty – has accounted for one-fourth of the total expenditure. According to the Ministry of Economic Development, the government has spent Rs. 6.4 billion in 2010, covering the implementation of 32,526 projects in 10,567 Grama Niladhari Divisions throughout the country.

11.3.3 Rural Infrastructure Development

In formulating rural development strategies and allocating resources, priority has been given to the Gama Neguma village based development programme which focuses on rural infrastructure and livelihood development. Community participation throughout the project cycle is a distinct feature of this programme to ensure the sustainability of the facilities in improving livelihoods. A positive feature is the priority given to the N&E

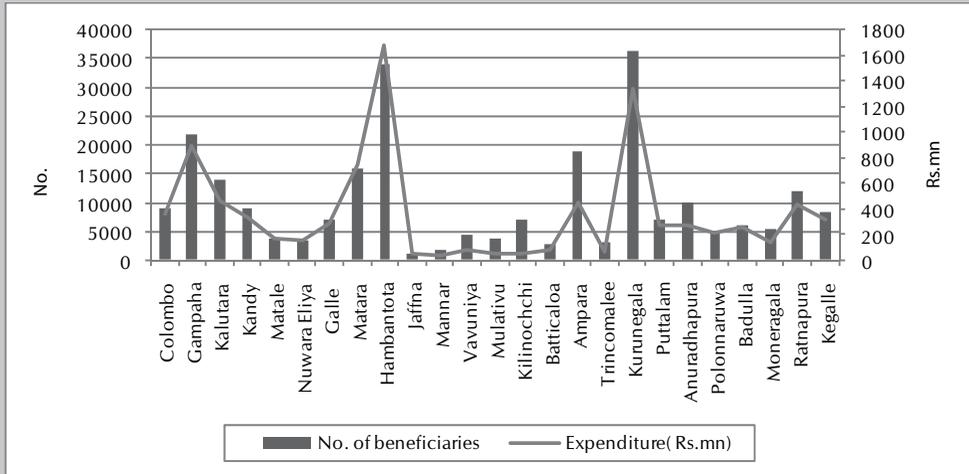
regions and poverty stricken districts to ensure that the benefits are delivered to the neediest segments.

Fund allocation under the Maga Neguma rural road development programme, which aims at improving the connectivity between regional and urban areas, has also progressed in terms of beneficiaries. Nonetheless, the level of development of the regions when making allocations appears less relevant under this programme (Box 11.2).

Box 11.2 Maga Neguma Programme

Since its initiation in 2005, road length of 7,449 kms. has been completed by end 2009 according to the Ministry of Finance. The district-wise fund allocation indicates that more has been set aside for districts with larger number of beneficiaries and vice versa. However, the allocations seem to have been centred on a few low-poverty areas. For example, 28 per cent of total expenditure between 2007 and 2009 has been utilized in Kurunegala and Hambantota districts alone.

Maga Neguma Coverage (2007 - 2009)



Source: Ministry of Finance and Planning, Department of National Budget.

The Gemidiriya programme which was initiated to support the government's strategy to reduce rural poverty through promoting sustainable livelihoods and equitable rural development has carried an infrastructure development component since its commencement. The significance of simultaneous infrastructure improvements in lagging regions is thus recognized.

The Samurdhi Development Authority also carries out a village infrastructure development programme, a bottom-up operation where the needs are identified, prioritized and implemented by the Samurdhi recipients with the guidance of government offi-

cial in the area. Concreting of village roads, tank renovation, construction of wells and clearing canals, and construction and repairing of school buildings have been carried out thus far. By 2010 this programme was estimated to have reached 3,060 villages in 317 Divisional Secretariat divisions.¹⁰

Alongside the above special rural infrastructure development programmes, the government implements programmes aligned with national service provision. As regards water supply, locally funded small and medium scale water supply projects are carried out across the country, which are planned and designed by the National Water Supply and Drainage Board (NWSDB).

¹⁰ Media Centre for National Development of Sri Lanka.

Box 11.3 Village Infrastructure Development through Gemidiriya

By end 2009, 3,245 projects had been implemented, benefiting 800,000 rural people.

Infrastructure Projects under Gemidiriya	
Type	No. of Projects
Road development	1818
Bridges, culverts and causeways	160
Irrigation	50
Drinking water	353
Sanitation	218
Multi-purpose building projects	501
Other	145

Source: Gemidiriya Community Development and Livelihood Improvement Project, *Annual Report 2009*.

The higher number of road projects undertaken in this programme indicates that roads are recognized as a priority in infrastructure facilities. Completed projects of 1,137 have been handed over to the communities for operation and maintenance as a measure of sustainable management through community participation.

In 2009, 17 new projects and rehabilitation and augmentation of 22 water supply schemes were undertaken benefitting over 1.2 million people (Table 11.3). Anuradhapura, Kalutara, Kurunegala, Matara and Ratnapura districts which record higher poverty levels have been given priority in terms of share of allocations and/or larger target groups.

According to HIES data compiled by the DCS, a notable improvement is recorded in access to electricity and safe drinking water between 2006/07 and 2009/10, especially in the rural and estate sectors (Table 11.4). Such factors, through improving livelihoods, can partly account for the sharp overall re-

Table 11.3
Small and Medium Scale Water Supply Projects (2009)

District	Allocation (Rs. mn.)	Beneficiaries	District	Allocation (Rs. mn.)	Beneficiaries
Ampara	13	17,500	Kurunegala	84	12,000
Anuradhapura	120	5,000	Matale	10	29,800
Badulla	29	37,150	Matara	92	192,000
Colombo	58	162,500	Moneragala	49	37,800
Galle	13	3,000	Nuwara Eliya	56	10,500
Gampaha	40	240,000	Polonnaruwa	41	60,000
Kalutara	80	142,000	Puttalam	4	2,500
Kandy	15	12,300	Ratnapura	92	205,900
Kegalle	63	47,500	Trincomalee	61	60,000

Source: National Water Supply and Drainage Board, *Annual Report 2009*.

duction in poverty levels that have been experienced in the country in more recent years.

Rural infrastructure development contributes significantly to agriculture and rural development, particularly in areas where poten-

Table 11.4
Access to Services (% of population)

Sector	Poverty Head Count		Electricity		Safe Drinking Water	
	2006/07	2009/10	2006/07	2009/10	2006/07	2009/10
Urban	6.7	5.3	94.9	96.5	97.7	96.8
Rural	15.7	9.4	78.5	83.2	85.0	87.1
Estate	32.0	11.4	62.3	84.0	46.2	65.1
Sri Lanka	15.2	8.9	80.0	85.0	84.8	87.3

Source: DCS, HIES (2009/10 and 2006/07).

Table 11.5
Development of Irrigation Facilities, 2010

Districts	Agriculture Land (in hectares) ^a	No. of Projects	Intervention Allocation (Rs. mn.)	No. of Beneficiary Families
Colombo	28,385	62	n.a	465
Kalutara	91,056	55	25.00	2,647
Galle	88,323	7	2.85	3,500
Matara	81,246	49	8.40	415
Hambantota	89,710	64	125.00	4,000
Ratnapura	141,366	n.a	98.00	4,100
Puttalam	91,068	1	18.00	579
Kurunegala	272,072	1	23.00	353
Matale	68,740	179	92.15	951
Kandy	94,674	207	54.60	951
Nuwara Eliya	86,761	5	2.34	870
Badulla	106,738	99	61.38	n.a
Moneragala	96,437	8	0.99	n.a
Anuradhapura	151,941	116	46.40	7,665
Polonnaruwa	71,206	16	15.80	1,702
Ampara	73,180	47	135.26	n.a
Batticaloa	34,490	4	382.00	n.a
Trincomalee	22,474	39	304.52	n.a
Vavuniya	13,840	2	80.00	334
Mulaittivu	16,293	45	100.27	n.a
Mannar	8,920	4	319.00	n.a
Kilinochchi	15,939	41	183.80	n.a
Jaffna	16,942	19	56.97	n.a

Note: a: Latest data available for 2002 only; n.a = not available.

Source: DCS, *Census of Agriculture 2002*; Ministry of Economic Development, *Annual Progress Review 2010*.

tial for agriculture development exists.¹¹ However, district-wise expenditure on irrigation in Sri Lanka appears to be somewhat ad hoc, where agriculture land extents and the allocations for irrigation rehabilitation follow no link. The N&E, comprising eight districts accounting for 11 per cent of agriculture land (according to 2002 mapping), is found to account for 73 per cent of irrigation expenditure in 2010 (Table 11.5). This may have included the restoration of the destroyed schemes in addition to the new developments. Nevertheless, the potential for expansion is a relevant consideration if allocations are to be effective.

11.4 Infrastructure Development and Employment

The potential for employment generation of infrastructure development is considerable. Infrastructure investments in core areas such as transportation, water systems, energy and school buildings have shown to generate a significant number of new jobs, both direct and indirect, with the highest proportion being in the construction sector.¹² Sri Lanka has mostly resorted to labour-intensive infrastructure projects. Although estimates on the jobs generated due to mega infrastructure projects in the country are not available, its contribution towards easing the issue of unemployment, especially among the rural youth is evident.¹³ The contribution of infrastructure developments towards employment generation stretches beyond the period during construction to the commencement of operation of these projects. The mega port projects, for instance, can create direct jobs for sailors, technicians, bunker suppliers and many other vocations, and indirect jobs due to other shipping services and tourism - in

addition to many more opportunities as service providers to the main operations.

11.5 Conclusion and Way Forward

Sri Lanka is aiming to achieve economic development that is regionally balanced. The provision of infrastructure facilities will be important in attracting investments into the provinces. However, despite much progress, the distribution of new infrastructure developments reflects imbalances in some sectors. In terms of financing, rural and social infrastructure developments at national level seem to have gained less attention from foreign funding sources. Encouraging private investments through an enabling environment with favourable policy, laws and regulations for public-private partnerships is vital in this regard.

In its infrastructure policy, Sri Lanka has attempted to address issues of inclusiveness by giving specific attention to rural infrastructure development. Moreover, the community participation aspect incorporated in most rural development programmes is a useful step. It will not only improve effectiveness of the programmes, but also ease the financing burden. However, the existence of several rural development programmes addressing infrastructure requirements at village level could lead to inefficiencies, resulting in duplication of work and some areas being totally missed out from the plans due to the absence of clearly assigned responsibilities of multiple authorities. A national policy for rural infrastructure development governing these multiple authorities would hence be important to properly capture and cater to all villages, avoiding duplication of developments and ensuring effective use of expenditures.

¹¹ Rauniyar, G. and R. Kanbur, 2009, *Inclusive Growth and Inclusive Development: A Review and Synthesis of Asian Development Bank Literature*, Asian Development Bank, Manila.

¹² Heintz, J. and R. Pollin, 2009, "How Infrastructure Investment Supports the U.S. Economy: Employment, Productivity and Growth," Political Economy Research Institute (PERI), University of Massachusetts, Amherst.

¹³ Anecdotal evidence in field discussions in the North and East (December 2010-February 2011).