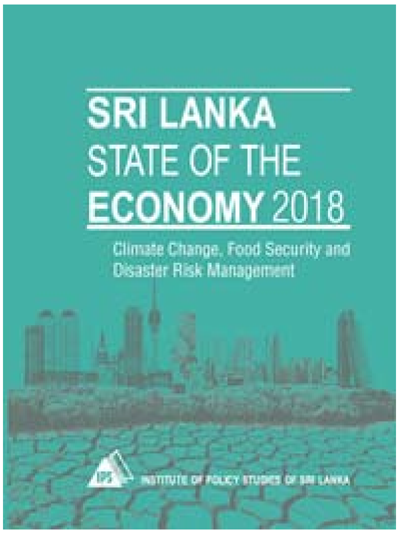
26 September 2018

POLICY INSIGHTS

INSTITUTE OF POLICY STUDIES OF SRI LANKA

CLIMATE CHANGE AND DISASTERS: MANAGING RISKS IN SRI LANKA

From the IPS flagship publication 'Sri Lanka: State of the Economy 2018 Report'



Natural disasters which have now become more recurrent have multiple impacts on Sri Lanka's economic development process. The impacts of disasters are felt disproportionately among economic sectors and across socio-economic segments. While, disaster risk management aspects pay attention to all economic sectors, the agriculture sector should receive more emphasis due to the resultant food security impacts and an array of other social and economic impacts within the sector and beyond.

Economic Cost of Climate-induced Disasters

There have been several efforts to quantify the macroeconomic costs of recent natural disasters in Sri Lanka. A preliminary analysis carried out using historical direct and indirect losses arising from physical and property damage and relief assistance shows that annual aggregate losses due to natural disasters (flood, landslides, and cyclone) excluding the 2004 tsunami, amounts to 0.5 per cent of the Gross Domestic Product (GDP) or equivalent to 3 per cent of government expenditure. The breakdown by peril shows costs that are relatively high in case of floods.

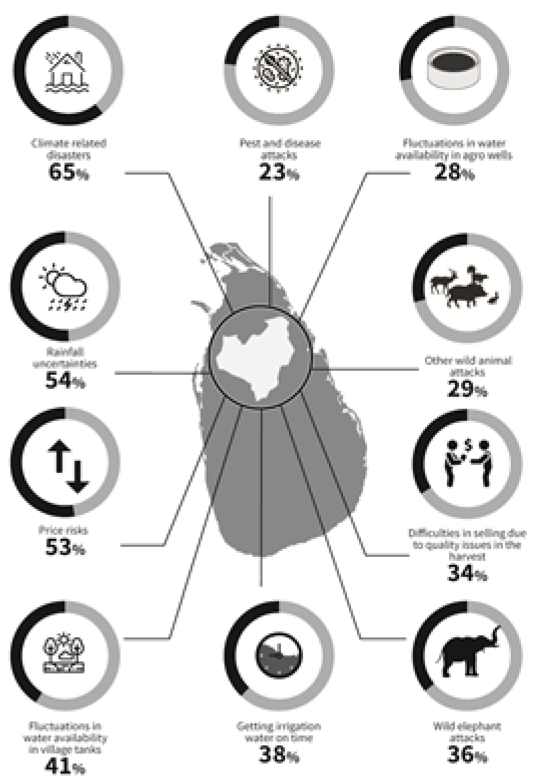
Climate-induced disasters have become a major risk factor particularly in Sri Lanka's agriculture sector, especially over the last few years. The estimated total damages and losses for the agriculture sector due to floods and landslides experienced in 2016 is placed were recorded as Rs. 1,698 million and Rs. 1,902 million respectively, as per the Post Disaster Needs Assessment (PDNA) carried out in the aftermath of these disasters. This is inclusive of crop cultivation, livestock, fishery and aquaculture sub-sectors. The estimated cost for loss of paddy alone is Rs. 553 million. The districts of Jaffna, Anuradhapura, and Mullaitivu were the most affected/severely affected.

Meanwhile, the government has been incurring significant costs in assisting flood and drought affected households. However, the percentage of flood and drought relief expenditure out of total government expenditure shows a declining trend during the last decade. Since climate-induced disasters are becoming more frequent, it is important to take appropriate precautionary measures in addition to providing relief after a disaster occurs.

Policy Gaps in Overcoming the Cost of Climate-induced Disasters

Appropriate investments are a key aspect in reducing disaster risks. Disaster resilience has to be a national priority in Sri Lanka and as such, special

Risks and Uncertainties faced by Farmers in Anuradhapura District



Source: Wickramasinghe, K. (2017). Climate insurance for dry zone farmers in Sri Lanka. Policy Insights, Colombo, Sri Lanka: Institute of Policy Studies of Sri Lanka.

emphasis needs are to be given to disaster related investment planning.

Investments can be made in both structural and non-structural approaches to reduce the impacts of disasters. Structural measures are intended to provide physical protection from disaster impacts and involve significant amounts of funds. Non-structural measures focus on reducing exposure and vulnerability to natural disasters in terms of planning and adaptation. The preparation of hazard maps is an example of this.

Preferably, an appropriate policy mix of structural and nonstructural measures should be in place to reduce disaster risks effectively. However, as the National Disaster Management Plan (NDMP 2018-2030) highlights that the investments on structural measures are quite low.

Financial protection is a vital element of a comprehensive disaster risk management strategy. However, Sri Lanka does not have a dedicated fund to finance disaster management. The absence of such a fund leads to interruptions and inefficiencies in post-disaster activities. Given the increasing impact of natural disasters on various sectors of the economy, expediting the establishment of such a fund is an important need.

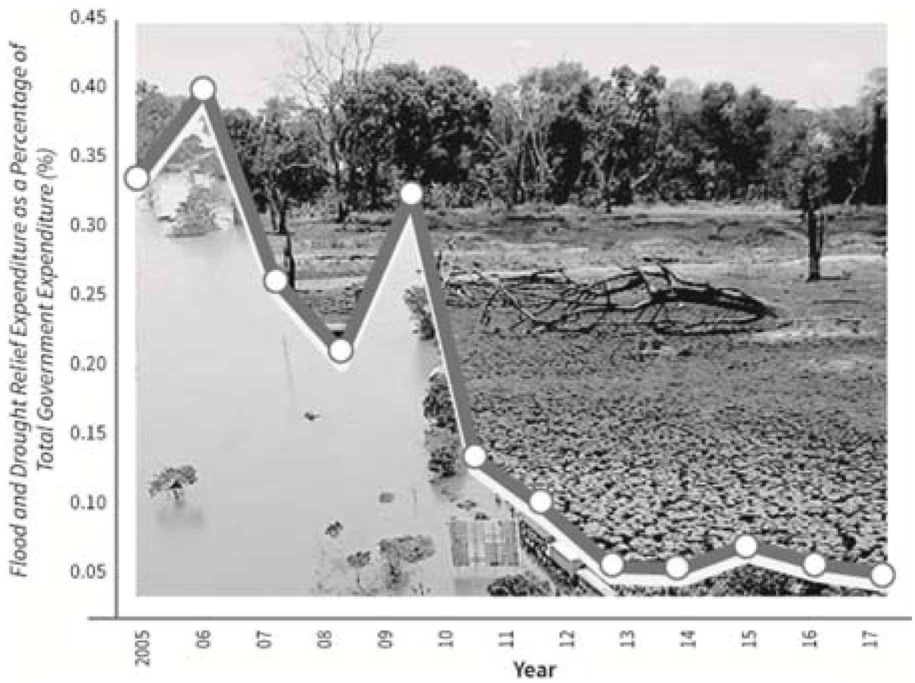
Disaster insurance is increasingly being recognised as an important tool in disaster risk management. Considerable policy attention is paid in promoting disaster insurance in Sri Lanka both at the national and sectoral levels. The National Natural Disaster Insurance was introduced as a countrywide initiative, while insurance companies also cover certain disaster risks in its policies.

Integrating Disaster Risk Management into Economic Planning and Decision Making

As the National Disaster Management Plan (NDMP 2018-2030) highlights, there are notable gaps in terms of research-based information on natural disasters. These gaps include lack of research, technological innovation, and investigations on various aspects of disaster risk management. Risk assessments and hazard and vulnerability mappings are required for almost all aspects of disaster risk management including investment planning, financing and awareness creation on disasters. Effective dissemination of disaster forecasts and early warning should also be an important area in improving disaster resilience. Disaster forecasts are particularly important in relation to the agriculture sector.

such as loss and damage assessments, climate data and research-based inputs are pivotal in supporting these actions. Comprehensive awareness programmes are particularly required for better functioning of insurance programmes that cover natural disaster risks.

Overall, mainstreaming disaster resilience aspects into developmental planning at all levels is a prerequisite for successful implementation of all disaster risk management activities.



Source: *Illustrated using data from Annual Report 2016, Ministry of Finance Sri Lanka.*

Further improvements in the existing early warning system can minimise the disaster related social costs such as mortalities and injuries. Effective disaster financing and investment planning are crucial for achieving disaster resilience in the medium and long run. The need for having a dedicated fund for disaster risk reduction has been already highlighted. Disaster mitigation should receive more attention in disaster financing and investment planning. Though government relief expenditure has being decreasing over time, still a major share of fund allocations are spent on disaster relief activities.

In addition, education and awareness creation among the general public should be a key strategy in promoting disaster insurance. Disaster related information

This Policy Insight is based on the comprehensive chapter on "Climate Change and Disasters: Managing Risks in Sri Lanka" in the 'Sri Lanka: State of the Economy 2018 Report' - the flagship publication of the Institute of Policy Studies of Sri Lanka (IPS). The complete report can be purchased from the publications section of the IPS, located at 100/20, Independence Avenue, Colombo 7. For more information, contact the Publications Unit on 0112143107/0112143100.

ThinkTank Initiative

100/20, Independence Avenue,
Colombo 7,
Sri Lanka
T: +94 11 2143100 / 2665068,
F: +94 11 2665065