



CLIMATE CHANGE AND OCCUPATIONAL HEALTH: A GROWING CONCERN FOR SRI LANKA

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



It is predicted that there will be more than a 10 fold increase in work hours lost due to climate change during the period 2015 to 2085 for countries in Asia, Pacific, West Africa, Latin America and the Caribbean. Extreme weather events such as storms and floods create injury and displacement, causing widespread disruption to livelihoods of local communities. For instance, the recent south-west monsoon in May 2018 in Sri Lanka triggered floods, landslides and heavy damage to both property and livestock, affecting 163,000 people. The resultant health risks can be many. Polluted water during floods expose farmers to vector and water-borne diseases; the destructions of crop and asset damages due to extreme weather conditions pull farmers into poverty, and deprive them of proper nutrition. As a result, farmers encounter health issues

arising from poverty and lack of nutrition. Emergency rescue workers are another group that face health issues induced by weather changes. They are particularly at risk of contracting water-borne diseases such as typhoid, leptospirosis and dysentery.

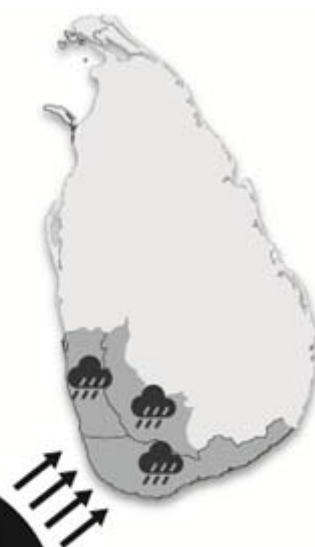
Health Impacts of Climate Change on Occupational Health Hazards

Exposure to UV radiation from excessive contact with sunlight causes the development of malignant skin diseases. As such, this is most evident for people in countries in close proximity to the equator. It is known that working outdoors at high temperatures and humidity levels cause excessive sweating. This can lead to heat exhaustion and increased heart rate, which could eventually result in the failure of the central thermoregulatory system causing dehydration, injuries, heat fatigue and cardiovascular diseases, and weakening the immune system.

Furthermore, extreme weather patterns such as continued droughts are more frequent in recent years in Sri Lanka. High temperatures, coupled with increasing droughts and water shortages in the dry zone, particularly affect outdoor workers such as agricultural farmers. There is evidence to

indicate that repeated episodes of heat stress, coupled with water loss, can cause kidney injury and lead to permanent kidney damage over time.

Sri Lanka is equally prone to extreme disasters such as floods, cyclones, coastal erosion, rise in sea levels and landslides. Floods were the third most common type of natural disaster between 1974 and 2017 in the country. Heavy floods in mid-2016 in particular displaced approximately 225,000 people. Although there were no infectious disease outbreaks in the affected areas, vulnerable populations

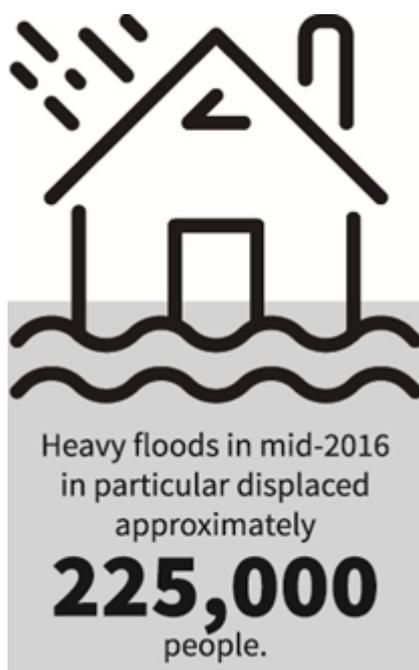


Southwest Monsoon in May 2018 affected number of people **163,000**

such as the fishing and farming communities and rescue workers were at increased risk of contracting vector-borne, water-borne and diarrhoeal diseases, leptospirosis, fungal diseases and acute respiratory infections. Labourers and construction workers employed in unprotected work environments, including farming and fishing communities were severely affected by these natural disasters. Flooding imposes a threat to human life of the fishing community and increases the likelihood of contaminated water with urine causing wounds, dermatitis, conjunctivitis and infections. Although not epidemic prone, these diseases cause short to medium term negative health impacts on medical services, incomes and livelihoods.

Challenges in Climate Change Adaptation for Occupational Health

Given that the impact of climate change is often uncertain, Sri Lanka lacks research studies to assess the health effects of climate induced diseases on several occupations. Although the Department of Meteorology (DOM) at present provides weather forecasts on a daily basis, there is limited accessibility on specific studies, data and relevant research on the health impacts of climate change. This is further constrained by the absence of more reliable climate change projections



The main source of air pollution in Sri Lanka is through vehicle emissions of which the largest proportion **60%** of total emissions is accounted for in Colombo.

and quality of information, which are essential for developing adaptive actions in different sectors.

Similarly, there is insufficient awareness of the negative implications of climate change on several occupational sectors. While the NAP- CCI in Sri Lanka 2016-2025 has delineated steps to launch an awareness programme on climate and been led by a resurgence in vehicle imports that precipitated previous bouts of BOP crises.

With the downward revision of GDP growth to around 4 per cent for 2018, Sri Lanka's politics bring the biggest uncertainty to any economic forecasts. From 2018, an electoral cycle kicks in until all the way to presidential elections in late 2019/early 2020. The implications

Policy Recommendations

The importance of raising awareness on influences of climate change has been acknowledged in many government plans, reviews and policy documents. Although the MOH has taken several initiatives to raise awareness on the health hazards among the general public, more could be done. Awareness campaigns should be targeted at different occupations, as the ill effects of climate change vary significantly across occupations. These awareness campaigns should be an on-going process, so that the general public are continuously informed of precautionary measures well ahead of any disasters. However, initiating awareness campaigns alone are insufficient to mitigate the

negative health implications of climate change on occupations.

Technological advancements are central to monitor and predict the likelihood of extreme weather events, and curtail the negative health implications on various occupations. Early warning systems would definitely help mitigate the negative health impacts on the farming and fishing communities, since communicating the risks and prevention responses will ensure food and nutrition security, and concurrently assist in contracting water and vector-borne diseases.

This Policy Insight is based on the comprehensive chapter on "Climate Change and Occupational Health: a Growing Concern for 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.



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