

Improving COVID-19 and pandemic preparedness and response through the downstream of multi-hazard early warning systems



Problem being addressed

Many countries now recognise the need for improved pandemic preparedness. The WHO has declared COVID-19 a pandemic, but its underlying factors, vulnerabilities and impacts go far beyond the health sector. COVID-19 has overwhelmed health systems and caused widespread social & economic disruption in Sri Lanka, including an estimated Rs 900billion / 6% GDP to the economy, especially the tourism, agriculture, garment and service sectors.

By putting societies and economies on hold, Sri Lanka has curtailed the virus' spread. These defensive measures have helped to limit the short-term impacts of the virus, but also resulted in a shift of priorities that disproportionately affect disadvantaged groups, including people in poverty, displaced people and refugees, who most often live in overcrowded and under resourced settings.

Current COVID-19 measures have also exposed gaps in the country's DRR (disaster risk reduction) strategies, which have failed to address pandemics and other biological hazards. Government agencies are already stretched trying to manage the COVID-19 response, but how would they cope if another natural hazard occurred concurrently, such as the seasonal Southwest Monsoon which is expected to increase dengue cases? COVID-19 protocols may create ambiguity or confusion with regards to other hazard warning services, as well as with response actions like evacuation for tsunamis.

There are also opportunities for pandemic preparedness and response to make better use of the existing infrastructure, including other hazards' early warning protocols. Addressing these will require the integration of pandemics into a multi-hazard, national and local strategy for DRR, advocated in SFDRR, but not implemented. It will also necessitate a multi-stakeholder approach to collectively examine impacts, coordinate fiscal, monetary, and social measures, share practices and lessons learned.

Objectives

- (1) To identify the key actors and what are the processes involved in the preparation of COVID-19 and other pandemic warning and dissemination processes
- (2) To propose recommendations to mainstream COVID-19 and other pandemic threats to be integrated within national and local disaster risk reduction strategies
- (3) To explore the impact of COVID-19 on the response capabilities for other hazards, either multiple simultaneous events, or cascading impacts and to understand what components of early warning system are greatly affected due to dual challenges associated with COVID-19
- (4) Develop and implement a synergised COVID-19 and public health surveillance system with "the last mile" of MHEW.
- (5) To identify how would pandemic response measures impact the downstream response to other hazards, including mass evacuations with increased capacity of shelters, camps and to identify measures to overcome these tensions in an emergency situation
- (6) To propose how the COVID-19 and public health surveillance system can be synergised with "the last mile" of multi-hazard early warning systems, where community networks, communication systems, and citizen behaviours can be utilised for pandemic EWS at the community level

Key outputs

- (1) Develop a conceptual framework on the key actors and processes involved in COVID-19 and other pandemic warning and dissemination processes.
- (2) Conduct public engagement events and round table dialogues.
- (3) Outcomes will be disseminated through at least five high quality, peer reviewed multi-institution, multi-disciplinary journal papers in high-impact journals lead to a briefing paper and a policy dialog on current status and recommendations on the integration of pandemics within the national/local DRR strategies
- (4) A vision paper will set out the future integration of pandemics into a MHEW environment.
- (5) At least four oral presentations in leading international conferences.
- (6) Publish project activities through project flyer and project website

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Planned outcomes/impact

The research will help Sri Lanka and the wider region to better prepare, respond and recover from disruptions caused by pandemic threats. The study results will influence the IOC-UNESCO ICG/IOTWMS on approaches to assessing tsunami hazard preparedness and priorities for capacity development of member states, and benefits will extend to the 28 member states of the IOTWMS, 23 of them DAC.

Huddersfield's Amaratunga and Haigh are expert members of the ICG/IOTWMS "WG1 Tsunami Risk, Community Awareness and Preparedness", which is Chaired by Dr Rahayu, an Advisory Board member. The results will change the understanding and awareness/attitudes of national and subnational actors, in particular the impact of COVID-19 on the response capabilities for other hazards. It will change decision-making and behaviour of national and subnational actors through improved standard operating procedures for natural/pandemic early warning and contribute to progress with the SDGs: 13 Climate action; 11 Sustainable cities and communities; and 10 Reducing inequalities.

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The Association of
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Public Health
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UN Office for Disaster Risk Reduction

UNDRR (The United Nations
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Reduction) & ESTAG (Science &
Technology Advisory Group) of
UNDRR



United Nations
Educational, Scientific and
Cultural Organisation



Intergovernmental
Oceanographic
Commission

The Intergovernmental Coordination Group for
the Indian Ocean Tsunami Warning and
Mitigation System (ICG/IOTWMS) of The
Intergovernmental Oceanographic
Commission of UNESCO (IOCUNESCO),
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