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Sandpit Proposal Group 1, CABARET workshop

Kandy, Sri Lanka

05th - 10th March 2018

Sandpit event discussion and reporting

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Title	A detailed study of the technical, legal and socio-cultural complexities involved in communicating coastal based multi hazard early warning to jurisdictional agencies and response partners.
Research area	This study will focus on the interface between upstream detection of the coastal hazards, to the downstream response, including potential evacuation of the exposed communities. This interface involves a wide array of jurisdictional agencies and response partners, including national contact points, and a range of sub-national emergency operational centres and related actors. Protocols and standard operating procedures for processing and issuing warnings vary greatly at the national and sub-national levels and it is possible that same agencies are involved in multiple hazards. Experience over recent years of the impacts of hazards has shown that inadequate preparation for, and response to, emergency situations have contributed to widespread damage and the avoidable loss of lives and livelihoods. These hazards set back economic development in both developed and developing economies, and tend to disproportionally affect the most vulnerable in society. The shortcomings in preparation have been due to a lack of warning through poor regional detection and communication systems, but they also reflect inadequate awareness, planning and coordination. Recent studies and practical experiences from the Indian Ocean region suggest that more attention needs to be paid to the cognitive and normative challenges in positioning the early warning systems and preparedness in the wider context of social change in the coastal societies and communities at risk, and for critical reflection of 'on-the-ground' experiences and lessons learnt. National legal frameworks within member states do not enable them to issue evacuation warnings directly. This is the responsibility of each country, which have varying legal frameworks, technical capacities to forecast potential impacts, and socio-cultural approaches. For example, the ability to create accurate, real-time tsunami warning information through tsunami energy estimates, flooding maps, and tsunami-induced currents, varies across countries, but can be critical in determining

	potential local impacts. Using whatever information is available and depending on the legal frameworks of a country, the decision on whether to evacuate may be taken at the national or various sub-national levels, sometimes down to local emergency operation centres. There is considerable debate as to which level is best able to make such decisions. However, there is a lack of understanding into the approaches of different countries, or their effectiveness. This sandpit proposal seeks to provide a much clearer insight into what is happening at the national and sub-national levels, and the options available h to improve their standard operating procedures. The planned activity will involve an initial detailed study and comparison of coastal based multi hazards and their downstream activities. The results of the study will be presented at the next ICBR Conference and a journal paper and initial briefing report will be prepared. Initial findings will also be presented at the Inter-Governmental meeting, to inform future policy and capacity development, including its 2019-2021 works programme. This provides an opportunity to achieve significant impact from the work. It is anticipated that the results will lay the foundation for a wider study, for which external funding will be sought.
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Scope of the challenges relevant to the sandpit	Scope: **Coastal multiple, rapid hazards with an element of early warning** (including tropical cyclones, tsunamis, sea erosion, storm surges, wind storms, earthquakes) Country scope: **The study will be based in the participating countries [Myanmar, Indonesia, Philippines]** Note: council specific (compare and contrast every point in the analytical framework) Stage of the management cycle: **Pre-disaster preparedness and prevention** Target audience: **National, regional and local entities** (governments), **other national agencies, international organisations** (including donors/ funders), **people at risk, researchers and academics** Scope: **Both the provider and the receiver** (the government and the people) Scope and boundary: **Conclusion should arrive at the end** (hazards will be kept separate for the time being but might be combined as an integrated framework – this will be decided later once we have more information following from completing first milestones) Definitions: **Coastal flooding** is a result of tropical cyclones and tropical surges **Coastal erosion** cannot be part of early warning system prevention Boundaries identified for costal hazards with an element of early warning: **Fluvial rainfall and rapid onset.** Downstream definition: stakeholders (starting point **National Warning Centre**, end point are the **people at risk**)

Problems and challenges identified by group members	A list of specific problems: **legal and institutional framework; further exploring the definition of downstream in the contact of multi hazard early warning systems** Challenges: 1. **Define Multi-Hazard Coastal Early Warning Systems (MHCEWS)** 2. **Analytical framework** [components of the study- must include the types of stakeholders involved in the downstream system and identify who the decision makers are]: **a) the legal system** (including institutional arrangements such as centralised and decentralised, vertical or horizontal considerations), **b) socio-cultural considerations** (language, awareness, local experiences and knowledge etc.), **c) communication mechanisms, human and technical capacity** (education), **d) financial mechanisms** (funding for implementation etc.) 3. **Deliberate the feasibility of one integrated system** (One Integrated System for Multi Hazard or Integrated Multi System for Each Hazard?) Common language and terminology: **outlined above** *(scope).* **General trend -> adequate applications on a national level** (expertise may need to be localised and address what a country may need)
Proposed activities with time frames	Initially using the CABARET resources, later will look at getting external funding Activity 1: **Establish a common understanding and terminology on the Multi-Hazard Early Warning Systems** through **literature review** (worldwide – national to international). Activity 2: **Explore the feasibility of the analytical framework** (identify the options for Activity 4) through **Round table discussions (Focus groups/ Interviews).** Activity 3: **Data analysis.**

	Activity 4: **Determine the most suitable approach for Multi-Hazard Coastal Early Warning** (linked to Activity 1 and 2 and the concept of one integrated system or an integrated multi system). Activity 5: **Explore and identify enablers, challenges and barriers associated with our recommendation**. Activity 6: **Identify pathways to increase effectiveness of research engagement and uptake with the potential of impact on policy, practice and governance for Multi-Hazard Coastal Early Warning.** Activity 8: **Publishing research outputs in terms of journal and conference papers and contributing to policy.** <u>Expertise:</u> No further expertise needed. <u>Milestones:</u> Milestone 1: **Literature review to be done before the Myanmar workshop** (report the findings and prepare the guidelines and the data collection instruments) [September 2018, Myanmar]. Milestone 2: **Use Myanmar workshop as a reflection and progress review** (question 2 and analysis – two short country summaries) [September 2018, Myanmar]. Milestone 3: **Initial structure and review for the data collection** [September 2018, Myanmar]. Milestone 4: **Initial findings and options for multi-hazard early warning** [Philippines]. Milestone 5: **Challenges to be outlined short country reports** [December 2018]. Milestone 6: **Journal paper, policy brief and grant proposal** [February 2019]. Milestone 7: **Present a poster at the ICG UNESCO** [March 2019]. Milestone 8: **Present the findings** [November 2019, Indonesia].
Expected outputs or outcomes from the activity	Potential results: **Sharing best practices and experiences across the countries** (CABARET will be used as platform) Further notes:

	- CABARET's funding will be used: the potential need for any staff exchanges will be revisited at the next meeting in Myanmar. - Organise Skype chat to discuss progress during half-term.