



A SDMS Model: Early Warning Coordination Centres

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Following the tsunami disaster in 2004, the General Secretary of the United Nations (UN) Kofi Annan called for a global early warning system for all hazards and for all communities. He also requested the ISDR (International Strategy for Disaster Reduction) and its UN partners to conduct a global survey of capacities, gaps and opportunities in relation to early warning systems. The produced report, "Global survey of Early Warning Systems", concluded that there are many gaps and shortcomings and that much progress has been made on early warning systems and great capabilities are available around the world. However, it may be argued that an early warning system (EWS) may not be enough to prevent fatalities due to a natural hazard; i.e., it should be seen as part of a 'wider' or total system. Furthermore, an EWS may work very well when assessed individually but it is not clear whether it will contribute to accomplish the purpose of the 'total disaster management system'; i.e., to prevent fatalities.

For instance, a regional EWS may only work if it is well co-ordinated with the local warning and emergency response systems that ensure that the warning is received, communicated and acted upon by the potentially affected communities. It may be argued that without these local measures being in place, a regional EWS will have little impact in saving lives. Researchers argued that unless people are warned in remote areas, the technology is useless; for instance McGuire [5] argues that:

"I have no doubt that the technical element of the warning system will work very well,"... "But there has to be an effective and efficient communications cascade from the warning centre to the fisherman on the beach and his family and the bar owners."

Similarly, McFadden [6] states that:

"There's no point in spending all the money on a fancy monitoring and a fancy analysis system unless we can make sure the infrastructure for the broadcast system is there,"... "That's going to require a lot of work. If it's a tsunami, you've got to get it down to the last Joe on the beach. This is the stuff that is really very hard."

Given the above, the paper argues that there is a need for a systemic approach to early warning centres. Systemic means looking upon things as a system; systemic means seeing pattern and inter-relationship within a complex whole; i.e., to see events as products of the working of a system. System may be defined as a whole which is made of parts and relationships. Given this, 'failure' may be seen as the product of a system and, within that, see death/injury/property loss etc. as results of the working of systems. This paper proposes a preliminary model of 'early warning coordination centres' (EWCC); it should be highlighted that an EWCC is a subsystem of the Systemic Disaster Management System (SDMS) model.