

Third International Conference on Early Warning
27-29 March 2006, Bonn, Germany

Official Call for Abstracts

The organizers of the Third International Conference on Early Warning (EWC III) invite the submission of scientific abstracts on the following topics:

- Mega Events and Early Warning
- People, Politics and Economics in Early Warning
- Multi-Hazard Approaches in Early Warning

A general description of these three areas of discussion is attached hereto for clarification and guidance. Only a small number of outstanding abstracts can be presented at the conference's Scientific and Technical Symposium, but all deserving papers will be collated in an EWC III publication. In addition, some applicants will be given the opportunity to present their work as part of a poster exhibition at the conference venue.

The deadline for submission of scientific abstracts is Wednesday, 30 November 2005. The abstracts should not exceed 500 words in length and be written with a view to informing decision-makers and practitioners rather than the scientific community alone. All abstracts should be submitted in English in MS Word or rtf / txt format by email to ewc3@un.org or be addressed to the secretariat of EWC III, UN/ISDR, Palais des Nations (room A576-578), CH-1211 Geneva 10, Switzerland. For updated information on the conference, please visit www.ewc3.org

Topics

1. Mega Events and Early Warning

Extreme events of natural origin are and will remain unavoidable. Consequences can, to some extent, be mitigated by hard and soft infrastructural measures, by improved disaster preparedness and by risk reduction measures - among them early warning. General expectations for further and more dramatic increase of damages are forcing the scientific community and decision-makers to address these issues without delay.

The most extreme and most devastating events are frequently called *mega events* without having a clear definition of this term. *Mega event* describes a complex situation in which an extreme natural hazard of unanticipated magnitude triggers a set of associated risks as well as human reactions or the lack thereof. A technically sound, all-encompassing and reliable assessment of the probability of mega events, and of the corresponding damage and/or affected people, is still not available.

Mega events, being beyond “reasonable” human expectation due to their magnitude and due to the unpredictable consequences in terms of human and material losses, frequently defy the logic of disaster preparedness. Countermeasures would require large amounts of resources. Thus, up till now, no distinct preparations have been made to tackle mega events. No feasible protection measures could be implemented in advance to mitigate these ill-defined mega events once they occur.

In this context, early warning and the emergency measures triggered by it can be expected to be the most efficient countermeasure to avert the worst consequences and at least save human lives. However, even with early warning, mega events will continue to pose a rare but serious threat of unpredictable proportion.

The session ‘Mega events and Early Warning’ thus addresses the following issues:

- How to establish clear definitions and thresholds in order to facilitate the debate about mega events? How to classify what is often referred to as *too improbable* or *too catastrophic*?
- How to conceive early warning measures to anticipate the unimaginable and how to qualitatively estimate future developments?
- How to achieve improved knowledge and improved forecasts of mega events?
- How can a mega event be quantified from observations well beyond the historical range of time series?
- How can the necessary level and type of preparedness be defined and achieved to ensure an adequate response once an early warning of a mega event has been issued?
- Are there mega events that have not received enough attention in science and decision-making?
- How can lessons learned be used to improve early warning of mega events?

2. People, Politics and Economics in Early Warning

Natural disaster implications have become a serious concern to citizens due to increasing damages and losses, especially after the Tsunami mega event of 26 December 2004 in the Indian Ocean. Societies all over the world are expecting policy-makers to launch sustainable initiatives, which are integrated into the social structures. The call is no longer for relief actions only, but for preventive measures directed at reducing economic losses and increasing societies' resilience.

Early warning is a key instrument in reducing vulnerability. In order to be effective, it needs a strong orientation towards the people at risk. Society itself has to be empowered to strengthen its self-help potential and to increase its stake in disaster mitigation planning. Be it an international, a national or a local system, early warning depends on a reliable institutional setting. Only through effective cooperation between decision-makers and their constituencies can loss of life and property at least be minimized.

Furthermore, early warning needs financial support for installation and maintenance. The costs can differ enormously depending on the specific need. To identify the appropriate concept, strategy and implementation instruments, realistic cost-benefit-analyses will be required for decision-making and justification of the necessary investments.

3. Multi-Hazard Approaches in Early Warning

Most communities face not one hazard but several, and need early warning systems to cover all. Is it possible to link these systems to improve their effectiveness?

Natural hazards have very different signatures in terms of speed of onset and geographical scope and early warning systems (**EWS**) have to be designed to address each appropriately. The geographic scale can be immense for droughts, major floods and tropical cyclones but quite small for landslides, earthquakes and volcanic eruptions. The lead time early warning can provide also varies greatly. For earthquakes some tens of seconds might be possible at best, for tsunamis it may range from a few minutes up to hours, while for tropical cyclones it is days, and for droughts it can be weeks or even months.

Nevertheless, there are overlaps between different systems that can provide synergies and efficiencies. For instance, routine weather data are used in warning systems for tropical cyclones, landslides, floods and droughts. The decision-making chains to issue and distribute warnings often have similar procedures and technologies. Early warning systems for very rare events, such as a tsunami in the Indian Ocean, are more likely to stay functional and alert over long periods if they are well integrated with systems for common events like tropical cyclones. Community involvement, which is

recognised as a significant area of weakness in many early warning systems, can be strengthened if common integrated approaches are taken.

The EWC III will provide a forum for experts to exchange views and research results on how early warning systems can be improved through multi-hazard approaches, including:

- examples of EWS that address more than one hazard
- gaps and potentials for multi-hazard EWS
- issues and opportunities for data sharing and integration
- warning chain integration - from the national/regional to the local level
- community-based risk mapping and responses to multiple hazards
- the contribution of multi-hazard approaches to the effectiveness and sustainability of EWS
- cost-benefit estimations.