

Proposals for Science and Technology Discussions at the World Conference on Disaster Reduction

The following proposals were developed by the
United States National ISDR Platform.

For information on the US National ISDR Platform, contact
Larry W. Roeder, Jr., Policy Advisor on Disaster Management,
State/IO/SHA 202-647-5070 roederla@state.gov

These topics can be their own agenda items, or treated as consistent themes
throughout the agenda.

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Building Codes and Reconstruction:

Proposed Conference Outcome: Agreement to recommend to national authorities that they facilitate the development of practical building code and reconstruction programs at the national or local level, as appropriate, to encourage disaster resistant structures.

Background: Housing and other capitol investments are usually the largest categories of property loss in a natural disaster, though so too are uninsured resources, such as forests. Where and how the housing stock is rebuilt has significant implications for community reconstruction. A useful discussion on

this topic could look at lessons learned from past major disasters and propose general policy guidelines to help societies properly prepare for disasters and have in place a plan for cost-effective reconstruction that does not merely rebuild but that actually enhances a community and thus reduces the potential scale of damage in the event of future disasters. This item is also an excellent platform for merging both social and hard sciences.

Preservation of Historic Resources:

Proposed Conference Outcome: An agreement that national authorities and international relief agencies need to consider appropriate rules for the protection historical resources when developing disaster mitigation, early warning and response plans.

Background: The protection of Historic Property, Museums and religious structures is key to the preservation of society and culture. The purpose of this item is to encourage the development of practical programs that preserve these assets in advance of a crisis, and set in motion protective measures at the onset of a disaster, or directly after. Such programs should list districts, sites, buildings, structures, and objects of national or local significance in history, architecture, archeology, and culture and then expend appropriate efforts and resources to maintain, repair, revitalize, or protect the significant characteristics that qualify a property for such a listing.

Global Forecasts:

Outcome Proposed Conference Outcomes: Agreement that governments will work towards a common global forecasting capability. The scientific outcome is to provide forecasts indicating the probabilities of hazardous weather (floods, high winds, blizzards, tropical cyclones) in an area several days in advance. A political outcome is to agree that if one government provides another a risk analysis or early warning, it should not be liable for error.

Background: Emerging efforts to accelerate improvements in medium-range (3-14 day) global forecasts of hazardous weather in both their accuracy and location: The United States is prepared to lead this discussion at Kobe or make a special presentation. The U.S. expert would be of international scientific stature, and able to present the latest activities and Proposed Conference Outcomes in this area. The USG proposes that this presentation lead off a session discussing how probabilistic forecasts of hazardous weather, with these rather long lead times, could be effectively used for mitigation and preparation. In other words, will the world be prepared for this forecasting capability? The organizers of this global forecasting effort would likely find the feedback from the participants at the Kobe conference quite valuable.

Comprehensive, Coordinated and Sustained Earth Observation:

Proposed Conference Outcomes: Agreement to support multilateral efforts such the Earth Observation Summit to strengthen global cooperation on Earth Observations.

Background: Following the Earth Observation Summit (July 2003), the United States joined 34 other nations plus the European Commission in adopting a Declaration that called for action in strengthening global cooperation on Earth observations. The summit participants launched the intergovernmental ad hoc Group on Earth Observations (GEO) with the Proposed Conference Outcome of furthering the creation of a comprehensive coordinated, and sustained Earth observing system or systems. Today, over 40 countries are engaged. This proposed agenda item would provide an overview of the GEO relative to disaster reduction, to include the purpose, structure, scope,

boundaries and development strategy for an architecture for the Group on Earth Observations System of Systems (GEOSS), (2) primary user requirements and opportunities for disaster reduction, and (3) current and future mechanisms, models and strategies for improving national and international coordination of Earth observations.

The Impact of population growth in hazard prone areas with high urbanization, environmental degradation, and poor land management.

Proposed Conference Outcome: Agreement to charge ISDR with coordinating a study with OECD and other partners on the risks associated with the Combination of population growth in hazard prone areas with urbanization, environmental degradation, and poor land management

Background:

There is evidence that this combination, together with other social, political, and economic factors, has led to an increasing severity of impacts from earthquakes, volcanic eruptions, landslides and tsunami, each of which needs to be discussed.

Animal Welfare:

Proposed Conference Outcome: Agreement that planning the mitigation, early warning and response phases of a disaster must take into account the impact of those procedures on animal welfare. Agreement that ISDR will coordinate a report on this topic with recommendations from relevant relief agencies and national authorities.

Background: This is both a sustainable development and a disaster issue.

Any society's reconstruction after a disaster can be hampered by poor planning for animal health and welfare. A panel could look for ways to develop more effective early warning, evacuation and preparedness measures aimed at preserving livestock, animals in Zoos and companion animals used for purposes of health. A subset of this item should be to examine the relationship of disasters and the spread of animal borne diseases. Dealing with this issue properly is essential to a society's health and economy. As seen in countries like Mongolia, Kazakhstan and Kyrgyzstan, or for indigenous Native American populations such as the Navajo, the death of livestock from natural disasters or disease can be catastrophic. In Mongolia, one-third of the 2.3 million people depend on animal husbandry for food, shelter, transport, heating and income. The spread of rabies or wasting disease can also be devastating to a nation's culture, health, and economy, especially in the recovery phase. The World Society for the Protection of Animals (WSPA) would make an excellent lead body for this effort.

Enhanced information sharing:

Proposed Conference Outcome: Request ISDR to develop a report on the state of disaster information sharing, what works and doesn't, and why, with recommendations on how to improve the global system.

Background: Global tracking and transmission of information is still in its infancy for most major hazards. Even where comprehensive international surveillance and monitoring structures have been developed, information sharing can fall apart at the regional and local level, due to technical, economic and political barriers or un-coordinated efforts. This agenda item is intended to craft measures to bridge these barriers, particularly in the developing world.

Insurance:

Proposed Conference Outcome: Request ISDR to prepare a report on approaches to enhance the use of insurance to reduce risks to hazards. The report should take into account barriers to effective commercial insurance and include recommendations on how use this mechanism to the benefit of homeowners and small commercial entities in the developing world.

Background: The development of effective commercial insurance programs is a crucial step to enhance structural standards and reduce dependence of central authorities for disaster response. Industry expertise in risk assessment, claims management and compensation can be invaluable to a community trying to craft effective building codes and regulations before a crisis strikes. This in turn can help to avoid having a natural hazard becoming a disaster. Tied into this discussion should be an examination of how to avoid unaffordable premiums. This question is of enormous importance to national economic and budgetary management, and damage compensation, especially in the developing world. As a subset, the report could recommend effective ways to measure the economic consequences of major disasters to nations, regions and the global economy. A better understanding of such measurements could identify a network of so-far unseen partners. Large scale disasters not only affect national economies through various channels, disrupting, business activity, undermining investor and consumer confidence, etc, they can also have a regional and global resonance that needs to be more properly understood. Private organizations, e.g. MunichRe and Swiss Re, could make good contributions on this topic, as well as the World Bank, with its Proventium program. The item could also examine the role of non-traditional forms of insurance.

Community Engagement:

Proposed Conference Outcome: An agreement to engage indigenous populations, minorities and small communities in the design of risk reduction programs, especially through community based organizations

Background: Community based organizations in disaster planning should help develop the plans for disaster mitigation along with the government agencies, businesses and others. The groups are often relegated to rescue and recovery efforts; but their experience also offers many lessons learned which would be invaluable to risk reduction, e.g. by identifying weaknesses and offering suggestions to bolster strengths, through local recommendations on the proper allocation of resources and an understanding of local capacity to resist hazards. Doing this will directly address one of the biggest obstacles to making disaster mitigation initiatives effective and sustainable, the lack of participation by, and accountability to, the communities that are at risk, e.g. indigenous populations, minorities and small communities. The 'command and control' model remains dominant in many places, relying on donors and professional disaster managers for planning. USG recommends breaking from this mold by involving potential victims very early in the planning stage.

Women in prevention and resolution of disasters:

Outcome Proposed Conference Outcome: Agreement that women will be engaged as full partners in the design of disaster prevention and response planning.

Background:

Women are a particular at-risk population that needs to be engaged in the design of effective disaster prevention and response. The U.S. Government particularly wishes that this item focus on the health care and employment needs of women and their charges. Too often, women are left

out of the planning, and after a crisis emerge without effective structures to maintain their livelihood and health. For example in some hazard prone regions, men from rural areas migrate seasonally to other regions or on a daily basis to urban area for work. The result is that women are often more aware of household/community level risks and are at the heart of coping capacity.

Racial and Ethnic Minorities

The internally displaced, indigenous populations, urban dispossessed (e.g. shanty town dwellers) and illegal immigrants in prevention and resolution of disasters:

Outcome Proposed Conference Outcomes: Agreement that the displaced (regardless of cause) will be asked to participate in design of disaster prevention and response planning.

Background: This discussion should explore how to engage these groups in the design of disaster reduction methods. In focusing on these communities, however, the USG wishes to avoid a discussion of sovereignty, and to explore practical engagements with another at-risk population. It is a good platform for examination of the challenges of the absence of state support for communities they do not recognize or plan for the breakdown/absence of community coping mechanisms. This discussion could add another dimension to the study of urban components of disaster risk management.

Effective Warning and Evacuation Modeling for Coastal and Flood Plain Regions:

Proposed Conference Outcome: Agreement that ISDR will be asked to coordinate a study with WMO, OECD and other relevant bodies to describe the legal and technical issues related to risks associated with coastal and flood plain regions. Within this agreement should be an understanding that governments that provide early warning and

response data to other governments are not liable for error.

Background: The threat from cyclonic storms and flooding is at least as severe as from earthquakes. With increasing development in coastal and flood plain areas, this hazard will be even more costly in life and property in the future. A session devoted to developing effective warning and evacuation modeling for these hazards is needed. Given differing levels of economic development and access to sophisticated technology, the session should explore improvements that can still be undertaken in the absence of state of the art technologies.

The role of mass media:

Proposed Conference Outcome: An agreement that ISDR will prepare a report on best practices relative to the role of mass media in disaster reporting, taking into account recommendations from the media as well as operational and voluntary agencies.

Background: This would be a discussion of the "role conflict" between emergency managers and media representatives over what functions the media should perform and how they should cover a disaster and the steps being taken to prepare a society. Examples of panel questions are: Is the media there to cover a story or to be part of the educational process, or both? What is the role of media in creating or avoiding panic, disaster shock, and the convergence of unwanted supplies and equipment?