



U.S. A.



Challenges and Opportunities Implementation of the Decade for Natural Disaster Reduction

Presented by Lacy E. Suiter
Science and Technology Committee, IDNDR

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Introduction

I am pleased to have the opportunity to discuss the role of the U.S. National Committee in the International Decade for Natural Disaster Reduction, and specifically to relate some of the exciting projects and activities that are underway in Tennessee and the central U.S. to implement the Decade in our part of the country. I will also offer some observations and recommendations - from a practitioner's perspective - on steps that can be taken to implement meaningful hazard reduction programs in an effort to "harness the considerable potential of the Decade."

U.S. Decade Structure: An Overview

The U.S. has adopted a unique model to guide Decade initiatives in our country. There are two principal, and related groups. The federal Subcommittee on Natural Disaster Reduction (SNDR) - comprised of 13 agencies with a role in hazard reduction - operates under the aegis of the Office of Science and Technology Policy. Under the leadership of Bill Hooke (NOAA) and others, the SNDR has achieved a remarkable feat - a consensus document that provides a comprehensive, balanced framework for a long term program that utilizes the considerable array of federal resources to mitigate disasters.

I want to emphasize the significance of this effort. If nothing else, the Decade has galvanized federal interagency action on the critical issues associated with hazard reduction. This coordination will hopefully be a lasting legacy of the Decade.

The second U.S. Decade organization - the U.S. National Committee (USNC) - was established under the auspices of the National Academy of Sciences (NAS) to guide the SNDR and other groups on Decade policy and programs.

The USNC, in terms of membership, is a microcosm of the Decade. The intent was to bring together the leadership of the key groups that have a role in natural hazard reduction: State and local government, professional organizations, insurance, the media, environmental organizations, and nongovernmental players such as the Red Cross.

The first task of the USNC was to fashion a framework of programs and activities that could be used to promote support for the Decade initiative; to identify opportunities for "Decade projects" that would involve key players; and to provide the Decade with an identity. These and other aspects of the Decade are addressed in the Committee's first report, *A Safer Future* (National Research Council, 1990).

"What have we learned from our experience with the Decade?"

In preparing my remarks for this meeting, I asked myself, "what have we really learned from our experience, our model - what advice can I offer as a member of the USNC?"

On the positive side, the Decade has unquestionably raised the visibility of hazard reduction and spawned a number of useful and innovative projects and activities (some of which are highlighted in Attachment 1). A series of thoughtful reports has been produced that examine the complexities of hazard reduction, the potential for action, and the need for more interaction among a broad constituency of researchers and practitioners.

"Opportunity" is the word most often associated with the Decade.

Yet, for many practitioners (and researchers), the Decade is out of focus. Questions persist: "*What is the Decade?*" "*How does it differ from current practice?*" "*How is my organization going to benefit?*"

There is a dichotomy. On the one hand, the Decade is a long-term, comprehensive initiative that purports to change perceptions, behavior and ultimately institutional approaches to hazard management. Yet, the Decade players, particularly practitioners, relate more readily to tangible products and activities that

have immediate, or short-term benefits. In an era of competing priorities and shrinking resources, priorities need to be given to developing and implementing - in the next twelve months - a series of projects and activities that: 1) provide the Decade with an identity; 2) reach a broad audience of researchers and practitioners; 3) complement and support the federal SNDR program; and 4) capitalize on experience and expertise in developing nations.

To be sure, the federal government, through the SNDR and the USNC, has an important leadership role, and can provide limited funding support for select demonstration projects. However, the success of the Decade will depend on how effectively - and how soon - the other key players are integrated into the Decade effort: State and local government, NGO's, professional organizations, the private sector, and the public.

For the balance of my remarks, I would like to relate our experience with three "Decade projects" that differ considerably in scope, yet share common objectives, namely:

- 1) To raise the visibility of hazard management;
- 2) To more effectively exploit available research and technology (underlying theme of Decade); and
- 3) To bring together divergent groups to conceive, develop, and carry out hazard reduction projects and activities.

U.S. - Latin American Partnership to Enhance Cooperation in Earthquake Hazard Reduction

One of the most exciting and potentially far-reaching projects in recent times was the conference in December, 1991, conducted by CUSEC in cooperation with approximately twenty other organizations, that brought together earthquake specialists from ten Latin American countries to explore opportunities for joint projects, and in the process to initiate a working relationship with their counterparts in the U.S.

The conference was a hit. Participants were organized into four working groups: hazard assessment, mitigation, preparedness/response, and recovery/reconstruction. Led by co-moderators (one each from U.S. and Latin America), the working groups were tasked to identify "implementable projects" that address "real problems and issues" and could be jointly carried out in the next year or so. Representatives from the OAS, PAHO, USOFDA, and the International Red Cross were present; their attention was focused on how to use their respective programs and resources advance the goals of this unique Inter-American partnership initiative.

The culmination of the conference was a presentation of proposed projects that emerged from three days of highly focused collaboration. Among the most promising projects include:

- * A handbook entitled: Earthquake Recovery: Rehabilitation and Reconstruction, targeted at community officials in the Americas that have responsibility for recovery planning. The handbook, which will be prepared by a committee from North and South America, will feature case studies and lessons learned from previous earthquakes to assist community officials in their earthquake recovery planning initiatives.
- * Sister City Project in Lifeline Network Mapping and Vulnerability Reduction - Acknowledging that lifelines (electric power and gas) are highly vulnerable to the effects of earthquakes and constitute a universal problem, the Mitigation working group developed a project that would use the "Sister City" concept to jointly develop and carry out a program to map lifelines and identify measures that can be taken at the local level to minimize losses when an earthquake occurs.
- * Reducing Losses in Masonry Buildings - The CUSEC states and Latin America share common problems with masonry buildings and their vulnerability to earthquakes. This project would borrow on the expertise and experience in Latin America in masonry building research, design and construction. In November 1992, a team of masonry officials will spend ten days in Tennessee as part of a national conference sponsor by the Masonry Institute of Tennessee, CUSEC, and the Tennessee Emergency Management Agency.

The U.S. Latin American Partnership embodies the spirit and intent of the International Decade, and can serve as model for other national efforts. The conference was a success for a number of reasons:

1. It allowed practitioners from different countries, but with similar problems and challenges, to engage in three days of camaraderie and problem solving.
2. A commitment was made at the outset to carry out the major project recommendations. In this context, a Steering Committee was formed to monitor progress.
3. Many of the projects that emerged are information based; in other words, while funding support is important, there is great potential for sharing of existing research, lessons, and information between countries in a "bridge building" effort under the aegis of the IDNDR.
4. Networking is at the heart of the IDNDR. The conference generated a number of spin-off projects. Example: CUSEC and the Organization of American States (OAS) have recently entered into agreement to sponsor two interns from the central U.S. to assist project planning and implementation for the OAS.
5. The conference reinforced the "two-way" nature of technology transfer in an international setting. Put simply, the CUSEC representatives have a new appreciation of the rich experiences and quality of expertise that can be found throughout Latin America as related to earthquake hazard reduction.

1993 National Earthquake Conference, Memphis

Another project that can serve as a "Decade model activity" is the 1993 National Earthquake Conference in Memphis, May 3-5, 1993.

This conference will be like no other. In terms of attendance, participants will be drawn from national and international centers of earthquake research - but also will include a substantial number of State and local officials with responsibility for implementing earthquake policy and programs.

The intent of the conference is to re-examine all aspects of earthquake hazard reduction in the central and eastern U.S. - but more importantly to look ahead - to identify projects and opportunities that will enable us to "make a quantum leap" in the earthquake program.

The leadership of national Decade committees - particularly those from nations with an earthquake hazard - will be invited to attend.

What makes this conference unique - and worth mentioning to this Committee - is that the conference itself is the culmination of two years of collaboration across the U.S. and around the world.

With a conference budget of approximately \$500,000 (contributions from NEHRP agencies and others), five working committees were formed two years ago to prepare "state-of-the-art" monographs that address five interrelated aspects of earthquake hazard reduction (Hazard Assessment; Mitigation of Damage to the Built Environment; Preparedness, Awareness, and Public Education; Emergency Response and Recovery; and Socioeconomic and Public Policy Impacts).

The important point to make is that, while the monographs will be a significant contribution to the body of knowledge on earthquake hazard reduction, THE NETWORKING AND COLLABORATION associated with the monograph preparation is perhaps more significant. In essence, the real value of this conference - and the Decade itself - lies in the new alliances and constituencies that are formed in the process of implementing hazard reduction programs and demonstration projects.

Hazard Management in Tennessee: A Community Handbook

What does the Decade mean to the countless number of professionals in communities throughout the world? How can we get them involved? What specifically can they do to contribute?

These and other questions and issues were the impetus for a third Decade project that I would like to share with you: *Hazard Management in Tennessee: A Community Handbook*.

Tennessee is fully committed to the Decade. Yet, we recognized that a gap exists between what we HAVE in Tennessee and what we NEED in Tennessee to reduce losses from disasters. In our state, we came to the conclusion that a major initiative was needed to:

- * Raise the visibility of hazards and their consequences in the state of Tennessee;
- * Educate all the key players - emergency managers, design professionals, the media, industry, educators, insurance, the public - on steps that they can take to minimize personal and economic losses in the event of disasters; and
- * Transfer resources - research, knowledge, technical assistance - to the communities to enable key groups to take action.

Hazard Management in Tennessee complements the U.S. National Committee's report, A Safer Future. Chapters address Hazard and Risk Assessment, Awareness and Education, Mitigation, Warning and Response, Disaster Recovery, and Training.

Tennessee's handbook is first, and foremost, designed for action:

- * Sixty-one "community action steps" are included that address all aspects of hazard management;
- * Resource listings are included - names, phone numbers, addresses - for each subject area.
- * An annotated reference provides useful information on available documents to enable communities to build their own resource centers;
- * The appendices contain practical safety tips for all hazards in Tennessee.

Hazard Management in Tennessee has been a very useful constituency building tool. It's easy to read and contains practical information. When used in conjunction with community workshops, the document can effectively answer three basic questions: "What is the Decade?" "What is my role?" "What resources are available to assist me?"

Summary

The U.S. Decade for Natural Disaster Reduction is slowly moving ahead, one pace at a time. The federal government, through the Subcommittee for Natural Disaster Reduction, is to be commended for a balanced framework (research and applications) for a long term hazard reduction program. Attention can now be focused on developing a delivery system for recommendations outlined in the SNDR report.

The underlying premise of my report is straightforward: the success of the Decade will depend on how effectively - and how soon - the leadership of the Decade, including the USNC and SNDR, can ignite the collective resources and interest at the community level.

In the U.S., the Decade needs to move beyond the Washington Beltway and into the hinterlands. Demonstration projects and activities can be the vehicle; I have shared with you our experience with three such projects. The common thread among the projects has been the priority given to energizing and integrating a broad, often diverse group of players into a collaborative process. Put another way, group chemistry is important. The Decade is a chance to bring together diverse groups to address common problems and issues.

Finally, as we look ahead, I see great potential for "Decade activities" at the sub-national level on an international basis. The U.S. - Latin American Partnership confirmed this. While there will always be a need, and a role for national Decade committees - institutional linkage is important - real progress will be made through the inter-personal relationships that are formed through Decade activities. For example, we have already identified a dozen "spin-off" projects that resulted from the U.S. - Latin American Partnership meeting.

In the final analysis, national Decade committees can serve an important policy, leadership, and clearinghouse role. The challenge in the next twelve months and beyond is to implement a series of projects and activities that will invigorate the Decade; provide it with an identity; and in the process begin to harness the potential that we all know exists.

Attachment 1

SAMPLING OF RECENT DECADE ACTIVITIES

- National Committee on Property Insurance dedicated their Annual Forum to understanding disaster reduction. The Forum's title: "The Natural Disaster Loss Reduction Puzzle: Making the Pieces Fit." Topics discussed included, among others: "Natural Disaster Economics: Averting Economic Disaster"; "Mitigation: a Public Policy Issue"; Principles of Property Damage Mitigation from Coastal Storms and Hurricane," "Land-Use Controls in Mitigating Seismic Loss." The Insurance Industry has also produced a couple of new videos, one on earthquake preparedness and another on the Insurance Industry's Contribution to the Decade.
- Two U.S. volcanoes, Mount Rainier (Washington State) and Mauna Loa (Hawaii) have been selected as part of the Decade Volcano Project (IDNDR Demonstration Project). Work is underway to develop a multidisciplinary science plan for understanding volcanoes, their impact on man and local environment, and the measures (engineering and preparedness) necessary to mitigate adverse effects. Work is being taken up by the national committee of the IAVCEI (International Association of Volcanology and Chemistry of the Earth's Interior) under aegis of ICSU.
- A research plan for the reduction of earthquake risk, *Minimizing Earthquake Vulnerability*, has just been published. The plan is meant as a guide to advance the objectives of the IDNDR. The IASPEI (International Association of Seismology and Physics of the Earth's Interior) Committee for IDNDR did the report under the aegis of ICSU.
- The National Emergency Management Association (NEMA) passed a resolution in support of the IDNDR and declared its support of individual state proclamations of the IDNDR to focus efforts on this activity. New York, California, Tennessee, for example all have state proclamations.
- Example of the kinds of work being done that is geared towards bridging the gap between scientific research and practical application: *Real-Time Earthquake Monitoring* report.
- Example of public education through the involvement of the USGS (federal agency), the American Red Cross and the United Way (NGOs): *Are you Prepared?*, an insert into the California newspapers.