

# Earthquake Engineering Research Institute

## Strategic Plan 2006-2010

May 2006

### Mission

*The objective of the Earthquake Engineering Research Institute is to reduce earthquake risk by (1) advancing the science and practice of earthquake engineering, (2) improving understanding of the impact of earthquakes on the physical, social, economic, political, and cultural environment, and (3) advocating comprehensive and realistic measures for reducing the harmful effects of earthquakes.*

### Vision and Role

***EERI's Vision:***      *A world in which potential earthquake losses are widely understood and for which prudent steps have been taken to address those risks.*

***EERI's Role:***      *EERI is a leader in earthquake investigations and in the dissemination of earthquake risk reduction information both in the US and globally in cooperation with its international partners.*

#### **EERI will fulfill its role through the following activities:**

- Fostering a sense of shared commitment among the diverse communities dedicated to earthquake risk management
- Promoting research
- Facilitating the exchange of information among members and others, and
- Forging a consensus and speaking with a common voice to public forums and legislative bodies on behalf of the diverse risk management community.

### Summary of Plan

The Earthquake Engineering Research Institute, a non-profit professional association with members in more than 60 countries, has been pursuing its *Mission, Vision, and Role* since 1949. EERI has gained credibility worldwide for reliable and high-quality information on seismic risks and mitigation. The membership remains committed to these basic principles and wishes to maintain its leadership in earthquake engineering. The 2005 Board of Directors developed this plan to help guide EERI in the next five years (2006–2010). They have been assisted in this effort by a working group of regional chapter presidents, future and past officers, and student activities representatives.

The following section presents **Four Strategic Initiatives** that comprise the essence of the updated plan. The section **Background** is a brief summary of the progress on meeting the goals of the previous (2000–2005) plan and implications for the future. The final section, **Current Challenges**, is an analysis of dominant factors affecting the fulfillment of the *Mission, Vision, and Role* in the next five years.

## **Four Strategic Initiatives**

To meet the challenges of the next five years, EERI will focus its efforts on four equally important strategic initiatives. Each of these is founded upon existing successful programs and projects. The intention is to make best use of our successes to extend and enhance our efforts. Each initiative includes measurable objectives and tangible strategies to achieve them. A brief summary of each Initiative follows:

### ❖ **Enhance and expand educational materials and technical programs**

EERI's trademark is reliable information on earthquakes and their harmful effects on the environment. EERI's name carries a high degree of credibility throughout the world in post-earthquake reconnaissance. EERI is also a leader in communicating relevant information on earthquake design, mitigation, and social issues through its meetings, publications, journal, and seminars. It is critical that EERI continue to revitalize its materials and publications to maintain its leadership and to reach its members in the technical community more effectively. EERI must also respond, in cooperation with other organizations and institutions, to the needs of society for leadership in multi-hazard risk management.

#### ***Objectives:***

- Achieve greater visibility and use of EERI's materials and programs throughout the U.S., and abroad.
- Enhance EERI as a source of relevant information on emerging technologies and practices.
- Maintain EERI as the focal point for post-earthquake investigations through coordination of public and private efforts, early reporting, and as an advocate for more complete documentation and follow-on research.
- Explore additional sources of funding for post-earthquake investigations to ensure that the program provides critical and timely information, as well as field experience for EERI members.
- Enhance *Earthquake Spectra's* appeal to all members
- Maintain a strong presence in the multi-hazard community.

#### ***Strategies:***

- Conduct seminars on at least two topics per year of timely practical interest.
- Convert materials, such as seminar notes and briefing presentations, for web distribution.

- Implement agreements with the national earthquake research centers, NEES, ATC, and other professional associations to improve the transfer of research to practice.
- Focus on the need for educational materials related to performance-based engineering.
- Publish monographs on important issues regularly.
- Encourage regional chapters to organize at least one local seminar per year.
- Coordinate the efforts of the Publications Policy and Information Technology committees with the editors of all EERI publications to determine how to meet the information needs of the membership and larger community.
- Increase opportunities through the student chapters for interaction between students and practitioners, and among students in all the disciplines involved in earthquake hazard reduction.
- Develop exchanges, internships, visiting professional and visiting scholar programs nationally and internationally.
- Strengthen and maintain the *Learning from Earthquakes* program and provide logistical and technical support to other credible entities involved in carrying out post-earthquake investigations.
- Create a theme section in *Spectra* emphasizing content of interest to practitioners.
- Contact and communicate with other organizations to participate actively in multi-hazard coalitions and activities.

## ❖ **Outreach and Advocacy**

Establish and maintain a highly visible profile at the national, regional/state, and local levels to inform public opinion and influence public policy to support EERI's mission. Identify and support seismic advocates at all levels of society and in all the disciplines. Substantially expand the number of engineers, social and policy scientists, and those in other disciplines, including those involved in research and other professional activities, that contribute to reduced earthquake risk in the U.S. and abroad. Take advantage of the expertise within EERI to play a major role in an increasingly multi-hazard environment.

### ***Objectives:***

- Generate increased funding to reduce risk in the built environment in the U.S.
- Influence knowledge, attitudes and policies of practicing engineers, regulators, construction workers, risk managers, commercial and residential insurers, re-insurers, risk managers, policy makers, and owners of facilities.
- Increase EERI activism at the regional and local level.
- Educate policy makers about the risks of earthquakes, so they include seismic risk in development decisions.
- Integrate earthquake risk reduction into broader efforts to achieve a sustainable environment.
- Contribute constructively to public awareness of multi-hazard risks.

***Strategies:***

- Issue periodic press releases highlighting existing risks and the costs of neglecting them.
- Use existing scenarios (Seattle, Hayward fault, San Andreas fault) proactively to demonstrate local risks to policy makers.
- Support local chapters in generating more scenarios (New Madrid, Boston, Anchorage, Salt Lake) to influence attitudes and public policies.
- Use the Quake '06 program as a model to provide information to school districts, utilities, facility owners, policy makers, and the general public on earthquake risk reduction. Create a coalition of engineers, building officials, and policy makers to address risks posed by non ductile concrete buildings.
- Explore the potential introduction of earthquake design and seismic safety into the “green” building movement.
- Conduct seminars focusing on business continuity issues for BOMA and others that have commercial and development interests.
- Participate actively in the NEHRP Coalition and cultivate individual congressional committee staff contacts.
- Encourage and support regional chapters to stay engaged with state and regional policy issues and provide technical input to regional decision makers.
- Develop responsible legislative and public policy agendas for endorsement by political candidates.
- Make use of new information dissemination tools and develop education and training modules to transmit lessons from recent earthquakes to help our members and others to be more effective, especially with an emphasis on Performance Based Earthquake Engineering (PBEE).
- Establish alliances with other like-minded individuals and compatible organizations working to achieve a sustainable world environment.

❖ **Maintain a strong program of international activities**

Continue to develop projects and programs with international partners to address the global need for credible and reliable information.

***Objectives:***

- Share information with our international partners to influence global safety against natural and man-made disasters.
- Provide a conduit into the U.S. for earthquake engineering data and information from other countries.
- Provide a conduit from the US for earthquake engineering information, professional services, and products to other countries.
- Identify new resources to move the World Housing Encyclopedia (WHE) to a level where it can serve as a global resource for seismic safety, post-earthquake rebuilding, and recovery planning.

***Strategies:***

- Support and encourage the IAEE in the development of an international seismic alliance.
- Expand current web resources with information on construction of seismically resistant housing to individuals involved in engineering and construction.
- Maintain a steady flow of cooperative efforts with our existing partners in Mexico, Japan, Australia, Canada, and China.
- Initiate MOUs with other international partners when the mutual benefits are apparent.
- Encourage international communication among student chapters and other student groups.
- Develop a resource for relief and reconstruction non governmental organizations (NGOs) to provide information and examples of sound rebuilding practices that can be used after future earthquakes.
- To the extent possible, encourage the translation of documents into languages other than English, to increase their usefulness in non-English speaking countries.

❖ **Expand and broaden financial resource base**

Build a broad and diverse base of financial support to underwrite current and future EERI programs and initiatives.

***Objectives:***

- Raise \$1 million in new bequests by 2010.
- Develop a detailed strategy and implement a plan by 2006 that will increase funding diversity and keep EERI financially stable.
- Endow the programs outlined in this plan for the long-term.
- Increase the number of regular EERI members in the U.S. and abroad to 3,000 by 2010.
- Double Subscribing Member support in dollars by 2010.

***Strategies:***

- Obtain professional advice to develop a multifaceted development strategy to solicit funds, bequests, and donations, etc., from foundations, corporations, and individuals.
- Establish a planned giving program by 2007.
- Mount an aggressive membership campaign to increase the number of Student, Young Professional and Regular members in EERI.
- Identify and target major stakeholders in the earthquake fields in the U.S. and abroad for Subscribing Members.
- Develop retention strategies to retain current members in all categories.
- Identify and solicit organizations that support issues consistent with the mission and goals of EERI.

- Solicit sponsorships of projects targeted at promoting important public policy issues with broad interest within EERI.
- Solicit funded projects, workshops, seminars, and other activities to expand EERI's technical programs.
- Continue semi-annual member solicitations.

## **Background**

In 2000, the EERI Board of Directors developed a Strategic Plan for the five-year period from 2000 to 2005, taking into account EERI's accomplishments during a half-century of leadership in the earthquake field. They identified areas where they believed EERI had opportunities to be more effective and documented a *Vision and Role* for EERI for 2000 to 2005. It is now five years since the development of that Strategic Plan and time once again to take stock of our accomplishments and look to challenges of the future. In updating the Strategic Plan we have reviewed progress in meeting the earlier goals and where appropriate, identified new goals, objectives and strategies to guide EERI over the next five years, as we carry out our mission from 2006 to 2010. The plan not only recognizes the need to continue to champion research and to develop programs for the professional engineering community, but it also understands the need to reach policy makers, the media, and the general public at the regional, national, and international levels to achieve a safer world.

The previous plan set out a number of objectives to help us reach our goals. First, a brief assessment of where we are in achieving those objectives:

- *Strengthen EERI's position as the primary advocate of earthquake safety and risk reduction*  
EERI played a key role in promoting and guiding the re-authorization in 2004 of the National Earthquake Hazards Reduction Program (NEHRP), which is the backbone for seismic protection in the U.S. EERI partnered with the American Society of Civil Engineers as effective advocates for a 50% increase in authorized FY 05 funding levels relative to those in FY 03, and a net increase in authorization for seismic safety of 74% through FY 09.
- *Increasing activism at the local level through an expanded network of regional chapters*  
Increased advocacy has been attained at both regional and national levels. New EERI chapters were formed in northern and southern California, but other regions in the north and southeast and northwest have not yet indicated interest in establishing their own chapters, and some long-time chapters have become all but inactive. Much remains to be done, as well, at the national level, where efforts to secure adequate funding for the NEHRP program and to heighten awareness and concern about regional seismic issues are ongoing battles.

- *Reaching the general public and media with information on earthquake-risk reduction*  
We have improved contacts with the media, produced an excellent media guide entitled “Talking Points,” and have increasingly been sought-after by the media, but continued effort needs to be put into maintaining these links and contacts.
- *Developing a plan for the use of electronic information to support the education and training of professionals throughout the world*  
The WHE has taken advantage of new technologies to improve the exchange of technical information with professionals throughout the world, but many opportunities remain as technology continues to transform the way in which we communicate globally. Expanded efforts to train professionals throughout the world using the WHE have been slowed by a lack of additional funding. *Earthquake Spectra* is now available online. The LFE website has expanded significantly, providing rapid posting of map-based photo images from current earthquakes and incorporating new technologies to portray damage from the field. The EERI website has been expanded to include links to many recent publications and studies, a comprehensive tsunami CD, all previously published oral histories, “Talking Points”, searchable back issues of all *EERI Newsletters* since 2000, limited videos of post-earthquake briefings, and links to many new web-based resources being developed by EERI Student and Regional Chapters. EERI remains on the cusp of actualizing the long-awaited, web-based Mitigation Center, along with its links to SCEC’s Earthquake Encyclopedia. The challenge is to stay on top of new opportunities provided by advances in information technology.
- *Obtaining foundation support to enhance professional capacity-building in the earthquake engineering field.*  
This area of great potential is, as yet, not fully realized.

## **Current Challenges**

Since the tragedy of September 11, 2001, the national policy dealing with disasters has undergone a significant change. Prior to that time, mitigation and preparedness had increasingly been recognized as valuable approaches to dealing with natural and technological hazards. However, the threat of terrorism resulted in a nearly exclusive focus on preparedness for and response to that single threat. Until the earthquake and tsunami of December 2004 and the hurricanes of August 2005, the need for natural hazard mitigation had been dramatically eclipsed. However, the unprecedented number and impact of recent natural disasters in the U.S. and abroad has renewed attention to preparedness and mitigation for natural disasters. *EERI has an opportunity to play a leadership role in educating policy makers to the need to refocus attention on preparedness and mitigation for natural and technological hazards.*

Dramatic technological developments have made our ability to gather, analyze, and share information and knowledge throughout the globe more rapidly, extensively, and effectively than we could even have dreamed a few years ago. We are able to capture and transmit images around

the world instantaneously and to transmit technical programs and information to thousands of individuals, far from universities and other centers of learning. It is an exciting time, a new millennium filled with opportunity. *EERI must take advantage of opportunities to incorporate new technologies into all of its programs, from field research to the transfer of research into practice.*

The fields comprising earthquake engineering are rapidly changing. Performance-based engineering is emerging to provide stakeholders with better information on which to base decisions about hazard mitigation. First of all, technical engineering practitioners need assistance in adapting and gearing up for these changes. At the same time, other stakeholders need to re-examine their decision-making processes to better use the improvements. *As a national, nonprofit, technical society of engineers, geoscientists, architects, planners, public officials, and social scientists, EERI has a unique opportunity and an obligation to our members to play a pivotal role in facilitating this transition.*

Many EERI members would like to help address the particularly harsh impact of natural disasters on those in developing countries. The world is rapidly becoming a smaller place. Our mutual security and economic well-being demand a global effort to reduce the effects of disasters, wherever they may occur. Our membership now includes a significant portion of individuals from outside the U.S. We also have formed strong ties with organizations in other countries. *EERI must play an active part in the global security movement.*

As we have seen over the past year, the misery of disasters respects no boundaries. It is frustrating to witness the continued proliferation of misleading information and the soft-pedaling or obfuscation of risks. The seismic risks in California and the rest of the U.S. are as well known to us as the inundation risk in New Orleans was to others. From our work with the WHE, we understand the global pervasiveness and deadliness of nonductile concrete frames with unreinforced masonry infill. *EERI must speak out about prevailing risks and effective mitigation actions locally, nationally, and internationally.*

EERI has been blessed over the years with funding that supplements membership dues paid by individuals. This has led to a tradition of members “getting more than they pay for.” We owe a lot to federal agencies, subscribing members, and others for their support. Yet this situation is not always stable, as we have seen over the past few years with federal funding. A more diversified base of financial support not only gives us stability, but also allows us the flexibility and opportunity to pursue our own priorities. *EERI must continue to develop a stable base of financial resources to support all of our activities.*

Among one of the most gratifying aspects of participation in EERI are the spirit and generosity of its many volunteers. Yet behind the scenes is the solid management of our Executive Director and her dedicated staff. In the next five years, it is likely that we will transition to a new Executive Director. Additionally, the demands that we face in our changing world will influence the skills that we need from our staff. *EERI must continue to develop the capabilities of existing and future employees in order to fulfill its mission.*