

CALIFORNIA COASTAL COMMISSION

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Th 8.5**Report on the****“CROWDING THE RIM” INTERNATIONAL SUMMIT ON
NATURAL HAZARDS AND DISASTERS**

On August 1-3 2001, approximately 160 scientists, representatives of government agencies, NGO representatives, and policy makers from more than a dozen countries around the Pacific Rim met at Stanford University to address mitigation and recovery from natural disasters in a region that is undergoing increasing globalization. The workshop was a collaborative effort of the U.S. Geological Survey and Stanford University, with support from the American Red Cross and the Circum-Pacific Council. The Coastal Commission was one of about a dozen supporting and endorsing organizations.

A central theme of the Crowding the Rim summit was that increased economic and infrastructure interdependencies among Pacific Rim countries, together with a rapidly increasing population throughout the region, places the entire region at increased risk to disruption from natural hazards. Hazards that once were once local risks are increasingly becoming regional or global risks. A second central theme is that natural hazards only become risks when people and property are put in harms way. Mitigation of risks can be accomplished by both hazard avoidance and by reducing vulnerability where avoidance is not practical. The term “natural disaster” is an oxymoron—disasters occur only when natural hazards are not adequately mitigated.

The first day of the summit was taken up by a plenary session. Leading scientists, business leaders, and representatives of both government agencies and NGO's laid the framework for our discussion throughout the remainder of the workshop. The second day was occupied by a simulation game, known as “RimSim.” Through role-playing, small groups representing multinational negotiation teams addressed planning for recovery from a pair of disasters (a hurricane and a major earthquake) in a mythical three-country region. The issues addressed were complex, and the roles were chosen to stimulate controversy, which—in most cases—was successfully overcome by consensus building during the negotiation process. The final day of the summit involved breakout groups which addressed a variety of issues inherent to hazard mitigation and development policy. These groups worked to identify areas in which economic

integration of the Pacific Rim might be both an aid and a hindrance in recovering from disasters.

Several products were developed by the Crowding the Rim development team both before and during the summit. "HazPac" is a GIS-based inventory of Pacific Rim population, infrastructure, and natural hazards (including past earthquakes, volcanic eruptions, tsunamis, floods, and major storms). It can be used to assess risk at various spots around the Pacific Rim by relating population and development to natural hazards. Ongoing efforts are producing a series of risk maps from these data. A second major product of the summit is an education module, designed for high school students and adult learners of any Pacific Rim nation. The module is intended to illustrate Pacific Rim interconnectedness and shared natural hazard risk. One component of the education module is a release of the RimSim game simulation. Finally, a vision for follow-up initiatives drawing from the summit is provided by a statement drafted at the summit, a copy of which is attached to this report.

Recommendations

A clear message to emerge from the summit was that recovery from natural disasters requires attention to the integrated nature of the disruption. It is easy for decision-makers to become singularly focused on immediate recovery efforts and to lose sight of the fact that decisions made concerning, for example, the nature of rebuilding infrastructure, will have long-term societal and environmental effects for decades after the disaster. The Coastal Commission is in a nearly unique position in the State to ensure that post-disaster recovery on the California coast be undertaken to ensure the protection of the coastal resource. Accordingly, given the likelihood that future natural disasters will severely impact the California coast, it is appropriate that the Commission debate the best means to ensure that recovery efforts and post-disaster development are both consistent with Coastal Act policies and provide the maximum feasible protection for coastal resources. Such means might include the following:

- Implementation of mechanisms for streamlining Emergency Permit processing following a natural disaster while ensuring adequate environmental safeguards.
- Development of a set of criteria to distinguish emergency recovery projects from redevelopment projects.
- Drafting of a position statement on priorities for medium- and long-term redevelopment following natural disasters on the California Coast.

ATTACHMENT—POSITION STATEMENT DEVELOPED AT THE SUMMIT

Statement: Crowding the Rim*

For three days, we have come together -- 160 separate individuals from around the world, representing a broad variety of disciplines, organizations, and cultures, initially uncertain about the event but open to a new and productive experience. We depart as a group, sharing an extraordinary enthusiasm, energy, and spirit, committed to taking what we have learned and experienced back into the communities and institutions from which we have come. This transformation -- from separate individuals to active, engaged community -- reflects both the design of the event and the dedicated, open spirit each of us has brought to it. Now the question is how we can carry this spirit and intent back with us into our daily lives, and share it with others having similar concerns. We have some observations about what we have shared, and how we might continue this process into the future.

As a result of our work with an interactive game simulation, in which interdisciplinary groups of analysts engaged in post-disaster planning, we respect the difficulty of making long-range decisions in the face of limited information and complex, interwoven regional infrastructures -- but gain confidence that it can be overcome. The exercise yielded some consensus themes that may be useful in real-world situations:

- establishing the primacy of regional over national objectives;
- involving local people and reinforcing local capacity;
- recognizing the priority of humanitarian purposes;
- recognizing and accepting resource limitations;
- reaching creative solutions by exploration outside the initial assumptions.

Information is essential to decision-making, but unless it is widely available and understood, it is useless. The Summit participants are committed to follow-up and outreach. We worked extensively with HAZPAC, the GIS database of geohazards, physiography, infrastructure and economic value around the Pacific Rim. Its availability on the Internet and in CD format will enable regions and communities to build on it, add their own data, and increase its utility to others.

Encouraged by the results of our work, we are resolved to support follow-on initiatives. Initially, through a listserve of the participants, we will help to plan a series of workshops to disseminate these findings to people and organizations throughout the Pacific. We believe that our experience is a useful demonstration of how people of different disciplines, cultures, and national allegiances can work together successfully.

Another follow-on initiative will entail the distribution of the Interactive Education Module, developed around the Summit by teams of teachers and students, and designed to introduce students at all levels to the problems inherent in ripple-effect disasters.

*Crowding the Rim is an international, interdisciplinary public/private partnership established in May of 2000 by the American Red Cross, the Circum-Pacific Council, Stanford University, and the United States Geological Survey. Its mission is to examine the impacts of ripple-effect disasters on nations of the Pacific Rim. These events result because rapid population growth around the Rim is converging with the hazard liability of a region characterized by tectonic plate collision and the consequent earthquakes, volcanic eruptions, landslides, tsunamis, and fires. Such events, along with the typhoons and flooding that also affect the area, can wreak havoc with the rapidly developing infrastructure – transportation corridors, communication channels, and pipelines – on which 21st Century life depends. In an increasingly global economy, local calamities quickly ripple out into international disasters. The Crowding the Rim Summit, held at Stanford University August 1-3, 2001, launched an ongoing program to analyze how such local events might reverberate throughout the Rim, and how these consequences could be identified and mitigated. The Summit brought together 160 diverse participants from various Rim nations -- earth scientists, social scientists, government decision-makers, and various stakeholders – to develop a deepened and shared understanding of these challenges. They heard background lectures, engaged in an interactive game simulation with lifelike disaster scenarios, and debriefed in extensive small-group discussions about the lessons learned.