



Maps of potential downstream flooding resulting from a dam break scenario were used by officials in Hawaii to delineate evacuation zones.

RVA Solutions: Hawaii Dam Failure Scenarios

In early 2006, a series of record-breaking flood events inundated the Hawaiian Islands and seven people died when a dam failed on the island of Kauai. The Department of Land and Natural Resources (DLNR) Dam Safety Division contracted Pacific Disaster Center (PDC) to model dam failure scenarios for all dams registered in the state of Hawaii and to create flood inundation maps. The maps serve as a basis for assessing risk in downstream areas and support emergency preparedness and evacuation planning.



Proactive Risk Management

Hazard events of similar size, strength, and duration can result in very different impacts, depending on social, economic, political, cultural, and environmental factors. On January 12, 2010, a magnitude-7.0 earthquake struck Haiti, killing hundreds of thousands and leaving more than a million people homeless. Just one month later, a magnitude-8.8 earthquake in Chile released about 500 times as much energy as the Haiti event. Although the impacts in Chile were disastrous, the number of casualties there was a fraction of those caused by the Haiti earthquake.

Since 1996, Pacific Disaster Center (PDC) has helped disaster managers assess potential impacts to people, infrastructure, and the environment from natural, technological, and human-caused hazards. Risk assessments identify and describe hazards, exposure, vulnerabilities, and capacities so that communities can decide what actions to take before, during, and after an event to reduce losses and recover quickly.

IDENTIFYING EXPOSURE ASSESSING POTENTIAL IMPACTS

Risk and Vulnerability Assessments (RVA) Can Help You:

- Identify areas most likely to suffer negative impacts
- Increase institutional capacity to anticipate and address risks
- Set meaningful risk reduction goals
- Enhance the effectiveness of humanitarian assistance and disaster relief activities



APEC Workshop on Hazard Mapping and Vulnerability Assessment

In 2010, more than 50 international attendees participated in the Asia-Pacific Economic Cooperation (APEC) Workshop on Hazard Mapping and Risk and Vulnerability Assessment, held in Chinese Taipei. The workshop, which was funded through the U.S. Agency for International Development (USAID) and APEC, focused on key concepts of risk and vulnerability assessment and hazard mapping. PDC experts guided participants through individual and group activities, such as creating hazard profiles, evaluating risk and potential impacts, and collecting and analyzing data using GIS software.

HOW CAN PDC HELP YOU?

PDC will listen to your needs, help identify gaps, and assist in crafting right-sized disaster management solutions.

We Offer:

- Early warning, risk assessment, and modeling and visualization solutions
- Training and strategic advisory services
- Assistance in identifying funding sources or support partners
- Online technologies to efficiently deliver services and support sustainability



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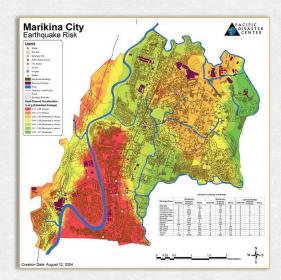
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Maps are an effective means of communicating complex information about hazard characteristics, exposure, and potential vulnerabilities and capacities, facilitating decision making.

RVA Solutions Include:

- Technical assistance and strategic advice
- RVA workshops and training
- Multi-hazard assessments
- Hazard mapping and modeling
- Analysis of vulnerabilities and capacities at the local, national, and regional levels
- · Visualization aids, including maps and animations
- Development of hazard and disaster scenarios

