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Community Based Disaster Risk Management

Empowering the People to Prepare

Post-Tsunami Sustainable Coastal Livelihoods Project

Theme Paper



Modifying the Model - Public Participation and Preparedness Pays

Over the recent years there has been a growing realization that the top-down approaches to disaster management of the past fail to address the localized needs of vulnerable communities. While these top-down, command and control efforts can be useful in managing the consequences of disaster, they do little to help communities to prepare for them.

The Rising Risk

Disaster risk is on the rise throughout the world and it is the developing countries that will bear the brunt of the devastation. The Center for Research on the Epidemiology of Disasters (CRED) calculates that the frequency of disasters has increased dramatically. In the time period 1987-1997 there were on average 200-250 disasters per year. For the time period of 2000-2007 disaster incidents increased nearly two-fold to over 400 disasters per year. The United Nations has estimated that globally on average 100,000 lives are lost and properties worth \$300

billion are damaged each year due to natural disasters.

These damage estimates don't take into account the many indirect and secondary effects on economic activities. Asia remains by far the region most frequently hit, accounting for 44% of all the world's disaster events.

Moreover, the economic, social, psychological and physical consequences are particularly onerous because they have a crippling long term effect on the overall development process.



“An ounce of prevention is worth a pound of cure”

Benjamin Franklin

It is now recognized that for disaster risk management efforts to succeed and be sustainable they must include the active participation of the community. Because it is the communities themselves that are on the disaster front, it is they that must be able to prepare and respond to events that threaten their well being.

Community empowerment for disaster risk management demands their participation in risk assessment, mitigation planning, capacity building, implementation and the development of systems for monitoring, which addresses their humanitarian needs. A critical element of sustainable disaster management is a communities' participation in these activities.

Unless the disaster management efforts are sustainable at the individual and community level, it is difficult to reduce the losses and scale of the disaster. Communities need the opportunity to be involved from the initial programming stage of disaster management activities.

The Approach

The aim of USAID's Sustainable Coastal Livelihoods Program Community Based Disaster Risk Management (CBDRM) initiative was to help communities in the project area develop an effective disaster management system at the village level. Over a period of 16 months the program conducted a series of training activities and

workshops to build the capacity of local communities to develop their own system to assess vulnerabilities and mitigate hazard impacts. At the end of the training period, village -based disaster committee members were able to assess risk, rank risks, develop mitigation strategies and better access governmental resources to enhance disaster preparedness.

The CBDRM training curriculum has now become part of the services that can be provided through the Kamphuan Community Learning Center. The curriculum is sufficiently replicable and can be used as training model throughout Thailand and Southeast Asia.



The Process- Building a culture of safety



Working in concert with such agencies as Asian Disaster Preparedness Center (ADPC), Department of Disaster Preparedness and Mitigation (DDPM), National Disaster Warning Center (NDWC), Raks Thai and the University of Hawaii, the CBDRM Initiative was able to bring the communities of the project area specific trainings modules:

- **Socializing the planning process-** Techniques for building public participation including the creation of local committees to assume responsibilities for such activities as disaster warning, evacuation, medical support, and rescue. Methods of recruitment for Disaster Volunteers to serve as the conduit of information to the communities.

- **Risk Assessment and Mapping-** Participatory production of hazard maps that include indigenous history and highlight areas of potential hazards and vulnerability.



- **Identification Strategies to mitigate impacts**-Evacuation routes, improved communications for more effective warning procedures, planting of mangroves etc.



- **Ongoing Community Education and Outreach**- Effective methods for ensuring sustainability of good disaster management practices through continuing education, training and linkages with local schools.



- **Evacuation planning** and drills-including Household safety kits and Community buddy systems to assist the elderly ,infirm and those with special needs

- **Tactics for linking** community activities with national initiatives

- **Geospatial understanding of disaster risks-** Practices for transferring data from local village mapping exercises into Geographic Information Systems (GIS). These data sets can then be transferred to government agencies responsible for national disaster planning and response.

The Product

- Over 1,000 community members and local leaders trained in Community based Disaster Risk Management and tsunami evacuation procedures

- Five disaster management plans in Kamphuan villages prepared by the community and adopted by local leaders

- Village hazard risk maps prepared in 7 villages

- Tsunami museum and informational kiosks with videos of survivor stories installed and publicly launched at Kamphuan Community Learning Center

- Outreach brochure on CBDM prepared and adopted as training curriculum for Kamphuan Community Learning Center

- The National Disaster Warning Center requested that SCL program serve as observer to the nation-wide tsunami evacuation drill for the six southern provinces on the Andaman sea



The Proof - Tsunami Evacuation Drill

February 24, 2007

The culmination of the Post-Tsunami Sustainable Coastal Livelihoods Project CBDRM Initiative's efforts resulted in a successful evacuation drill where over 900 people from three villages were moved to safe areas in less than 20 minutes.

During the drills, Thai disaster management officials activated national and local warning signals to test the system's ability to alert communities of impending natural disaster.

Emergency medical and rescue personnel, local police and firemen participated in the drills. National organizations such as Thai Department of Disaster Prevention and Mitigation (DDPM), National Disaster Warning Center (NDWC) worked together with the local Suksamran District Government and the seven community disaster committees in an atmosphere of multi-sectoral support.

Thai disaster management agencies plan to use this activity as a model for Community Based Disaster Resource Management and to share lessons learned from the drills across six tsunami-affected southern provinces.



USAID's Post-Tsunami Sustainable Coastal Livelihoods Program

Overview of Project

When the tsunami of December 2004 struck Thailand's Andaman coast it carried away not only the lives of over 5000 people but it also washed away the livelihoods for tens of thousands left behind. The disaster devastated the local economy by destroying fishing boats, engines and gear. The huge wave also took in its wake, homes, public buildings, and coastal infrastructure, including roads and bridges. The tsunami had its greatest impacts on rural coastal communities, many of which were already poor and economically vulnerable with limited livelihood options. Recovery is especially difficult in these poor communities because many of those that survived lost the capacity to practice their livelihoods.

The USAID Regional Development Mission/Asia responded with the Post-Tsunami Sustainable Coastal Livelihoods (SCL) demonstration project that helps coastal communities of Southern Thailand rehabilitate livelihoods, become more resilient to future natural disasters, and adopt livelihood practices that use natural resources more sustainably. Instead of just building back the way it was, this project strives to build it back better.

The project has a 30 month time horizon, with an end date of September 30, 2007. It is implemented in a partnership with the Coastal Resources Center of the University of Rhode Island, the Asia Institute for Technology (AIT), University of Hawaii, Coca-Cola Thailand, Asian Disaster Preparedness Center, and other local partners.

It is a model project, meaning that knowledge and lessons learned from what is developed and put in practice can be used in other at-risk coastal communities in Thailand or other countries in the Asia region.

Five tsunami-affected villages in Ranong Province were selected for the demonstration initiative. Located within Laem Son National Park, these villages have a population of 5,000 and are dependent on fishing and agriculture for their livelihoods. The relatively small, compact area makes it suitable for modeling an integrated approach to coastal disaster rehabilitation.

The SCL project seeks to build coastal community resilience with a focus on rebuilding the economic basis of livelihoods rather than on physical reconstruction, and on giving coastal people the skills and resources for self-recovery. Key elements of resilience include building livelihood opportunities that do not degrade the natural environment, protecting ecosystems, reducing vulnerability to natural hazards, and strengthening local governance. Project interventions combine ICM and hazard management frameworks.

USAID Post-Tsunami Sustainable Coastal Livelihoods Project

Theme Papers

This paper is one of a series of elemental theme papers from USAID's (SCL) Sustainable Coastal Livelihoods Project. USAID SCL Theme Papers are intended to provide an overview of our experiences, lessons learned and approach to rebuilding and rehabilitating communities in a post-disaster context. Each paper will address an issue that has been undertaken in the course of our efforts to assist in the rehabilitation process and the building of Coastal Community Resilience.

The papers will be based loosely upon the five main elements of the SCL Project:

1. Build a common vision for action.

The project works closely with local government authorities and community leaders to build local ownership and establish a common vision for rehabilitation. The project's activities are accomplished by community efforts and collaboration.

2. Reestablish and diversify environmentally sustainable livelihoods.

Microfinance, livelihood training, demonstration of new livelihood practices, small grants, and cash-for-work are strategies to reestablish and diversify livelihoods.

3. Natural Resources Management and Environmental Stewardship

Trainings and extension activities are focused on enhancing the capacity of local communities to better manage their ecological environment. Specific activities include training modules on solid waste management, monitoring and rehabilitation of coastal habitats such as coral reefs, beaches, mangroves and sea grass beds, and the development of marine park co-management plans.

4. Enhance community readiness and resilience to hazards.(CBDM)

The project builds readiness and resilience to natural hazards in communities through mapping of areas at risk to inundation, delineation of evacuation routes, training, village disaster management planning, evacuation drills, and First Aid training.

5. Share experience and best practices.

Regional learning workshops and study tours are convened to share lessons learned with others in tsunami rehabilitation, disaster preparedness and issues associated with community resilience.

Each paper provides a summary description of the Project's approach to particular issues or the above referenced cross cutting elements. The description represents a summary of the lessons learned by the Project and illustrates the approaches utilized to overcome specific obstacles encountered throughout the maturation cycle of the program.

While providing a useful overview of Project activities to our regional partner institutions, SCL theme papers are primarily intended for our Global partners in development, disaster preparedness and community resilience. The Papers aim to raise awareness of the Project's activities, accomplishments and lessons learned and to pique the interest of individuals and organizations to seek more information so as to contribute towards the ongoing discussion about strategic direction in disaster preparedness and community resilience.



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