Community Based Disaster Management
One component of having a Disaster Resilient Community

Post Tsunami Sustainable Coastal Livelihoods Program

Ranong Province, Thailand
Modeled on five rural coastal communities
A Disaster Resilient Community

• Understands the risk of natural and man made disasters
• Prepared as best as possible for known disasters
• Responds to disaster in a logical manner
• Recovers more quickly after disaster
• Learns from disaster and plans for next disaster
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Disaster Resilient Community

1) Economy: Diversified Livelihoods at individual, household and community level

2) Governance: Critical Infrastructure: roads, electrical, water systems, medical facilities out of high-risk areas, warning system in place

3) Disaster Preparedness
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USAID Projects Elements

- **Consensus Building**
  - Donor and Government coordination, community involvement, outreach

- **Sustainable Diversified Livelihoods**
  - Aquaculture, Agriculture, Villages Revolving Funds, Small Business Development

- **Community Based Disaster Risk Management**

- **Capacity Building**
  - Resource Co-management, NP/ JoMPA, TAO planning
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Infrastructure
Kamphuan Community Learning Center

Community Learning Center in Ranong
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Alternative Livelihoods

- Revolving Fund
- Low-Impact Aquaculture
- Catfish Hatchery
- Duck-Fish Farming
- Muslim Head Scarf
- Coffee Shop/Fruit Juice
- Recycling Shop
- Yellow Ginger
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Duck Fish Vegetable Farming
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Rebuild and Diversify Sustainable Livelihoods
- Small-scale tourism
- Low-impact aquaculture
- Boat and gear replacement
- Small business development
- Community revolving-funds
- Fisheries co-management
- Cash-for-Work

Enhance Capacity
- ICM approaches
- Regional learning workshops
- Training in fisheries co-management
- Disaster management education
- Micro enterprise training
- Good fishing practices

Disaster-Resilient Communities

Assess Impact, Facilitate Consensus and Create a Unified Vision for Action
- Participatory processes
- Community empowerment
- Village and TAO coordination
- Rehabilitation coordination
- Priority setting

Coastal Public Infrastructure and Disaster Management Preparedness
- Infrastructure co-financing
- Disaster management planning
- Environmental impact assessment
- Computer and internet technologies
- Tsunami resilient building design
- Hazard mapping
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Commitment of Community to Become a Disaster Resilient Community

1) Economy

2) Governance

3) Disaster Preparedness
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Asian Disaster Preparation Center ADPC

- Contracted to Conduct three four-day training programs on CDBM
  - Risk Assessment
  - Disaster Planning and Response
  - Community Meetings
  - Community Feedback
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Multi-Risk Approach

Natural Disaster
Tsunami - the reason why we are here but look at all disasters
• Forest Fire
• Landslide
• Flood-Drought
• Earthquake
• Volcano

Human Induced - electrical, environmental contamination, vehicular accidents, animal risks
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Risk Awareness Training
Hazard Mapping

- Identify Risk - Natural or Man made
- Rank Risk
- Identify mitigation strategies
Ban Talay Nok Study Case-Community Walk-Thru

- Walk thru villages to identify potential risks
- Make recommendations for mediation
- Practice Evacuation Route in each village to know evacuation time

20 minutes

Question: How much warning do we get?
Risk Ranking-example

Ban Talay Nok
- Standing deadwood trees a major hazard for Medical center Village
- Mitigation - cut trees
- Move Center- poor planning (lessons learned)
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Football Field- good use of inundation area!
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Hat Prapat Village

Walk Thru/Evacuation Route
15 minutes for fastest
25 for slower people
Question: How much warning will we get??
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Village Representative Training of Trainers

• Get Village members to conduct Village meetings
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Ban Taley Nok Community Risk Map
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Village Meetings for Community Awareness

- For village feedback to Maps and Plans
- Trainer Practice
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Disaster Planning Workshop

• Village Maps
• Disaster Plans
  ◆ 7 Committees
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Hat Prapat Disaster Preparation Map
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Risk Assessment Matrix Tool - Participatory Rural Assessment Method

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Ban Taley Nok Village Community Disaster Preparation Map
Integration of Community Maps to GIS

• University of Rhode Island will add data from village produced maps

• Map for Municipalities for local planning
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Community Disaster Prevention and Mitigation Plan

Before, During and After Disaster

• 1. Disaster Warning Committee
• 2. Evacuation Committee
• 3. Rescue Committee
• 4. Safety Committee
• 5. Medical Committee
• 6. Recovery Committee
• 7. Public Relations Committee
Still have to Do:

- Develop committee skills
  - First Aid Training, Search and Rescue Training
- Half-Scale Tsunami Warning Drill
- Full-Scale Tsunami Warning Drill
- Plan Development from drill feedback
- Final GIS Maps with input from village committees
- Bathymetric Survey for Inundation Model
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Bathymetric Survey for Inundation Model
Community Based Disaster Management

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Video of Survivors Stories-
Local Community Education
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Stories for Video Kiosks at Kamphuan Community Learning Center

Community Learning Center in Ranong
Community Based Disaster Management

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Multi-purpose Learning and Community Center
Disaster Educational Materials, Educational Team and
Tsunami Museum
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80% Finished! – Opening Ceremony December 18
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End-to-End: We are the Village End
Links with Indian Ocean Tsunami Warning System (IOTWS)
Tsunami Alert Rapid Notification System (TARNS) and
International Tsunami Training Institute (ITTI)

- Project provides on the ground reality check to IOTWS, TARNS and ITTI
- Develop this approach to use as a MODEL for CDBM in the region
- Bring our Lessons Learned to other countries in the region
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Lesson Learned:

- Training materials need to be geared to appropriate level!
  - School Curriculum, Community Materials, Government
  - Plenty of motivation but need usable materials, consider the users time constraints and area of focus
- Community Representative selection
  - well connected, well known, motivated, women’s issues
- Outreach and extension should be in local language of participants
- Need to link CBDRM to National and Regional IO Networks (we are doing this today!!)
  - National Disaster Warning Center
  - DDPM
- Input and Feedback from All Levels from Village to International
- Unified system of CBDM
- Share experience and lessons learned in CBDRM with region
- A plan is only good if it is understood by the users