THE EFFECTIVENESS OF COMMUNITY-BASED DISASTER PREPAREDNESS

Alex Joseph, Discipleship Centre
Bihar State

Population 86m.; 50% below poverty line
More than 50% of India’s flood affected people are in Bihar
8 major river basins
Poor governance; low literacy rates
Flood Affected Districts of Bihar - 2003

Damage Details:
- No. of Districts affected: 18
- No. of Blocks affected: 112
- No. of GPs affected: 845
- No. of villages affected: 2712
- Population affected: 3.79 million
- Total area affected: 8.34 lac hectare
  [Both Agr and Non Agr]
- House damaged: 12703
- Estimated Crop damaged: 358.3 (Million Rs)
- Loss of Lives: 83

Sources: Relief & Rehabilitation Department, GOB., Central Water Commission, Bihar Media Reports, Daily Reports from the Districts.
Crunch Model in Bihar

- Hazard
- Impact of Hazard
- Vulnerability/Capacity
- Dynamic Pressure
- Underlying causes

Also project impact and Cost Benefit Analysis
Hazard

Flooding
- Annual occurrence
- Lasts several weeks
- Flash-flooding - water released from dams in Nepal

July 2004
- Affected 21 million people
- 1.5 million hectares of agricultural land flooded
- 674,000 houses destroyed with many more damaged
- 585 people lost their lives
Impact of Flood

- **Economic**: Livelihoods lost
- **Natural**: Drinking water contaminated or hand-pumps submerged
- **Human**: Loss of life, water-borne diseases
- **Social**: Lower caste suffers the most
- **Physical**: “Kutcha” houses destroyed or damaged
Vulnerabilities

- **Economic** - Lack of work opportunities
- **Natural** – hand-pumps on low land
- **Human** – lack of knowledge/skills
- **Social** – disunity, lack of leadership
- **Physical** - lack of boats or escape routes
Capacities

Developed by the project:

- **Economic** – income generating activities and savings schemes
- **Natural** – raised hand-pumps (safe water)
- **Human** – clear plan, trained volunteers
- **Social** – trust, unity, discipline
- **Physical** - escape roads & boats
Causes

**Dynamic pressures**
- Why is there a lack of escape routes?
- Access to high land is denied by higher caste land owners

**Underlying causes**
- Existing caste system

**Approach**
- Entered into negotiations with 45 land owners

21 Jan. 2005  Practice into Policy. WCDR
Response to 2004 Flood

- Village Development Committee members take up their roles
- Pre-determined evacuation procedures followed, using safe escape routes
- Vulnerable prioritised for transportation by boat to safety
- Remainder of the villagers evacuate with livestock
Response to 2004 Flood

- People take shelter - materials assembled ahead of time
- Camp on embankment in planned areas
- VDC coordinates food for 3,450 households
- Flood response teams help other villages
Comparison with other villages

- Lack of preparedness
- Lack of resources for evacuation
- Disorganisation
- The particularly vulnerable were not systematically assisted by the community
- Delayed and ineffective response
- Heavy losses of life, livestock and household belongings
The Effectiveness of Community Based Disaster Preparedness

The moral argument...

- Lives, livelihoods and belongings were saved by integrating disaster preparedness with development activities
The economic argument

- For every 1 rupee spent, 3.8 rupees in quantifiable benefits
- Avoided repair costs of blocked hand-pumps
- Reduced loss of household possessions, tools and livestock
- Avoided boat rental costs
The Economic Argument

- Reduction in loss of life and injury
- Non-quantifiable benefits:
  - increased community confidence
  - improved women’s status
- reduced stress
Overseas Development Institute
HPN Network Paper 49
“Disaster Preparedness programmes in India: a Cost Benefit Analysis”

November 2004
The Challenge

- Turning Practice into Policy
- Scaling up localised work to assist larger areas with DC staff
- Formation of Panchayat working group (village reps, Mukhiyas, Block Dev’ment Officer and NGO staff)
- Advocacy with Nepal over water release
- Engagement with Govt/UNDP