

Снижение опасности стихийных бедствий

DISASTER REDUCTION

Pengurangan Resiko Bencana

Reducción de Desastre

Katastrof redusering

അത്യാപത്ത് കുറക്കൽ

Katastrofe redusering

आपत्ती कमी करणे

આହ୍ରମ ପୂଣିକରଣ

বিপত্তি নিরামণ

प्रकोप न्यूनिकरण

減少灾害

आपदा न्यूनीकरण

பேராபத்து குறைப்

Rampenbestrijding

災害軽減 風難害災

Katastrophenminderung

Катастрофы снизить опасность

ရှုကြည်မှုပေါ်လေ့လာသော

Зниження небезпеки катастроф

modération de risque causé par désastres

From an Effort to Turn Local Tsunami Recovery into Regional Disaster Risk Reduction for the Poor



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KEY IDEA

Of Origins and Products

Impact is elusive. It is not easy to distinguish, measure, or attribute. Still, there is an abundance of anecdotal evidence to demonstrate that the development of resilience against disasters among the poor is achievable. When risk reduction efforts succeed, resilience is the impact.

All India Disaster Mitigation Institute has seen this process in the past 15 years. What we have seen is that when it is owned and genuine, it is always unique and always applied in customised ways. This special issue of *southasiadisasters.net* has been designed both to share AIDMI's experience, and that of our partners, and to illustrate new ways to identify and appreciate resilience. As is well known to any educator, impact in supporting local development emerges slowly. It is long-term.

The Hyogo Framework for Action is now widely discussed and increasingly utilised to guide risk reduction efforts. Building from this base, governments, international organisations, and local civil society organisations can develop an approach to resilience that they believe is appropriate. Products of the HFA are customised as each user sees fit to meet local needs. Whenever global concepts and frameworks are applied, their implementation takes on slightly new forms, reflecting the nuances of the diverse people and groups that apply them.

The structure of this issue follows the HFA's five priority areas sequentially: making DRR a priority with an institutional basis for implementation; identify and monitor risk and enhance early warning; use knowledge to build a culture of resilience; reduce underlying risk factors; strengthen preparedness for response. In each article, specific examples of action are discussed that contribute to the priority. Most examples are taken from the work of AIDMI; others explain initiatives in other areas of the South Asia region such as hazard mapping in Sri Lanka and Nepal, and early warning in India.

The cover of this edition of *southasiadisasters.net* illustrates the term 'disaster reduction' as it is better understood in 20 locales. This is intended to reflect the diversity that makes up local actions that give the HFA both mass and momentum. Let us not forget that slow and steady support to local impact is needed to justify any global development framework. ■

*Tommy Reynolds,
All India Disaster Mitigation Institute*

Mainstreaming Disaster Risk Reduction into Development Processes

Hyogo Priority 1

ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation

The Hyogo Framework Priority 1 urges states to support an environment conducive for all actors to effectively implement the disaster risk reduction (DRR) activities outlined in other priority actions. States are advised to:

- build national institutional and legislative frameworks,
- assign responsibilities and allocate resources,
- promote community participation.

Some South Asian countries have adopted, or modified, legislation (e.g. Disaster Management Bill 2005, India) to make DRR a priority and laid down implementation plans (e.g. Towards a Safer Sri Lanka: Road Map for Disaster Risk Management, 2005) and the others are working towards it. The 23rd issue of *southasiadisasters.net* discusses the major features of these national policies. This section will provide a brief overview of how All India Disaster Mitigation Institute (AIDMI) has contributed towards implementing the first priority action of the Hyogo Framework.

Mainstreaming Gender Issues: Islamabad Declaration

United Nations Development Fund for Women (UNIFEM), South Asia and the Government of Pakistan, Ministry of Social Welfare and Special Education invited AIDMI to a Regional Consultation on Engendering Disaster Management. AIDMI participated in the consultation as an organisation in South Asia with expertise in disaster management.



In 2006 women's organisations gathered in Pakistan to discuss and learn about risk. Together, they formalised the Islamabad Declaration on engendering disaster risk management.

The consultation concluded with the Islamabad Declaration. The Declaration emphasises the need of recognising women's resilience and institutionalising risk reduction in recovery from disaster, so as to effectively engender disaster management. The consultation has identified three organisations of Pakistan, India and Sri Lanka to take forward the declaration in their respective countries both with their governments and with other organisations. AIDMI will provide them back-up technical support. The consultation was held in November 2006.

Mainstreaming DRR into Development Organisations

The regional consultation was followed by Training of Trainers Regional Workshop on Disaster Risk

Reduction and Transfer in Recovery, which was led by AIDMI. The participants were from various non-governmental organisations of Sri Lanka, India and Pakistan as well as from government agencies of Pakistan. They were helped to assess the progress of the organisations towards mainstreaming DRR in six key areas: policy, strategy, geographic planning, project cycle management, external relations and institutional capacity and to design the activities that would take their organisations a step further in each of the areas.

Turning Policy into Practice: Civil Society Round Table on Disaster Management Bill of India

In July 2005, AIDMI organised a round table to review the Indian Disaster Management Bill and

All photographs in this issue: AIDMI

suggest the ways for effectively executing it. The participants represented government ministers and MPs involved in promulgating the policy as well as international agencies like the European Union, UN agencies like UNIFEM and World Food Programme, trade unions like International Labour Organisation, National Agriculture Insurance Company of India, non-governmental organisations, communities

recovering from disasters, and others¹.

Supporting Local Governments

AIDMI worked alongside village *Panchayats*—local governments—in the states of Tamil Nadu, Gujarat, and Jammu and Kashmir and in the Union Territory of Pondicherry to develop action plans for integrating DRR strategies into tsunami, earthquake and flood recovery programmes.

¹ For more, see: AIDMI, 2005. The Disaster Management Bill, 2005. *southasiadisasters.net*, issue 3.

Enhancing Local Capacity

AIDMI strongly advocates for strengthening community participation in designing risk reduction policies and preparedness plans through different forums. In the tsunami, earthquake and flood recovery programmes in Tamil Nadu, Pondicherry, Gujarat, and Jammu and Kashmir, AIDMI has assigned project responsibilities to local communities. They have also developed and disseminated tools to assist such processes. ■

Understanding Risk: The First Step towards Disaster Reduction

Hyogo Priority 2

Identify, assess and monitor disaster risks and enhance early warning

As paragraph 17 of the Hyogo Framework states, *the starting point for reducing disaster risk and for promoting a culture of disaster lies in the knowledge of the hazards and the physical, social, economic and environmental vulnerabilities to disasters that most societies face*. This knowledge is applied to assess risks faced by communities and to warn at-risk communities against impending hazards.

Risk Assessment

Disaster risk reduction begins with identification of hazards to which an area is exposed and of communities, infrastructures, etc. that are susceptible to damage if a hazardous event is to occur. Results of hazard and vulnerability analysis are often presented on maps. A **hazard map** classifies the mapped area into different zones (high hazard zone, moderate hazard zone, low hazard zone, etc.) based on the probability of occurrence of hazardous events and their possible severity. A **vulnerability map** portrays



The four elements of people-centred early warning systems.

(Source: ISDR Platform for the Promotion of Early Warning)

vulnerable elements (human population, settlements, lifelines,

production facilities, etc.) and the level of vulnerability. Based on the

concept that hazards and vulnerabilities act together to constitute disaster risk, hazard and vulnerabilities maps of a particular area are integrated into a risk map. A low risk zone in a risk map would therefore mean that the area is less prone to hazard, or has less vulnerable elements, or both.

Why Should Risk Assessment be Periodically Conducted?

Both hazards and vulnerabilities are dynamic in nature. Processes such as urbanisation, climate change, river course shifting and land degradation alter hazard-proneness and vulnerabilities of an area over time. The Koshi River in the Indian State of Bihar, for example, shifted 120 km westwards over the past 250 years (480 m annually!) making new areas prone to flooding. Additionally, areas delineated in hazard maps are the predictions made on the basis of available scientific and other information. Therefore, with an advent of a new technology and availability of new information, the possibility of upgrading hazard maps remains open. Furthermore, occurrence of hazardous events offers an opportunity to verify and update hazard, vulnerability and risk maps.

Early Warning

UN/ISDR defines early warning as the provision of timely and effective information, through identified institutions, that allows individuals exposed to a hazard to take action to avoid or reduce their risk and prepare for effective response. A complete and effective early warning system comprises four inter-related elements:

- Risk knowledge;
- Monitoring and warning service;



Confluence of the Bagmati (SSE flowing) and Marin (WSW flowing) rivers in central Nepal (view towards east). Analysis of satellite imageries, topographic maps and aerial photographs from the last fifteen years indicates that the confluence has shifted 1500 m south and the Bagmati river has shifted 600 m west. As a result, Raigau village situated on the terrace in the west has become highly prone to floods.

- Dissemination and communication;
- Response capability.

A weakness or failure in any one part could result in failure of the whole system².

A Glimpse of What Risk Identification Looks Like: Selected South Asian Countries

India

In keeping with the objectives of the *Yokohama Strategy and Plan of Action for a Safer World*, a Vulnerability Atlas of India was developed in 1997. The atlas is a compendium of maps outlining areas prone to hazards and of high vulnerability. The atlas has proved to be an innovative tool for assessing district-wide vulnerability and risk of existing housing stock³. In September 2000, the Geological

Survey of India (GSI) published Seismotectonic Atlas of India and its environs. The GSI also maps site-specific landslides and suggests appropriate mitigation measures⁴. The Central Water Commission (CWC), with a network of 132 forecasting stations, forecasts flooding in most of the interstate rivers⁵. India Meteorological Department (IMD) provides warnings for severe weather

Disaster risk reduction begins with identification of hazards to which an area is exposed and of communities, infrastructures, etc. that are susceptible to damage if a hazardous event is to occur.

² UN, 2006. Global Survey of Early Warning Systems: An Assessment of Capacities, Gaps and Opportunities toward Building a Comprehensive Global Early Warning System for All Natural Hazards.

³ UN/ISDR, 2004. Living with Risk: A Global review of Disaster Reduction Initiatives. Vol. 1.

⁴ For more information, visit <http://www.gsi.gov.in>

⁵ For more information, visit <http://cwc.nic.in>

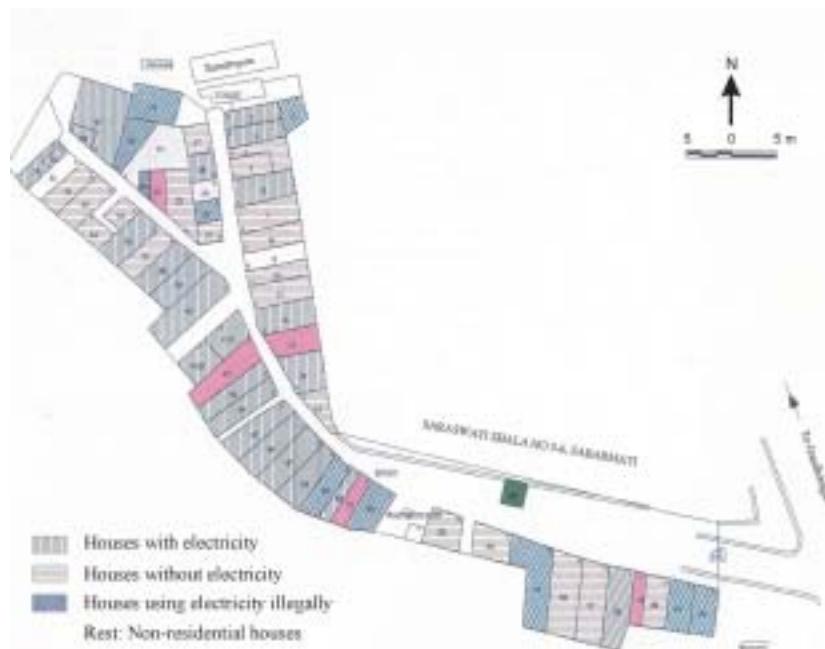
phenomena like tropical cyclones, dust storms, heavy rains and snow, and cold and heat waves. Flood Meteorological Offices set up by IMD provide meteorological inputs to the CWC for issuing flood warnings for several Indian rivers. IMD also detects and locates earthquakes and evaluates seismicity for development projects. Presently, it maintains 45 national seismological observatories⁶.

Nepal

The Department of Water Induced Disaster Prevention is conducting hazard mapping for hydrometeorological hazards like floods, landslides and debris flow. The mapping was started after the 1993 disaster in south-central Nepal triggered by an incessant rainfall claimed over 1300 lives and caused almost NRs. 5 bn in damage. Over the next few years, the mapping will cover all major river basins in the country. Contributions of the Department of Mines and Geology in identifying areas prone to various hazards are noteworthy. Although early warning systems have not yet been integrated into governmental policy, Nepal has warning systems for some hazards like glacial lake outburst floods.

Sri Lanka

In December 2005, the Disaster Management Centre, with the support of UNDP, put forward a comprehensive 10-year framework for Disaster Risk Management. According to the framework, the country will have hazard maps for landslides, floods, tsunami, coastal erosion and drought. Maps of highly vulnerable areas will be produced on a 1:10,000 scale. Information on spatial distribution of various natural hazards and vulnerable areas will be made available in a vulnerability atlas (on 1:50,000 scale). Early warning mechanisms will be set up for hazards



GIS map of a slum area in Ahmedabad showing the availability of electricity.

like floods, landslides, drought, cyclones and dam outbursts⁷.

AIDMI in Risk Identification

AIDMI conducts risk-mapping exercises with communities in partnership with the University of Basel. Communities in urban areas are provided with GIS maps of their area, taught how to read maps and asked to mark hazardous locations, e.g. low lying areas subjected to flooding. This kind of exercise raises awareness about hazards and changes people's perceptions about risks. The information obtained through these exercises enables AIDMI to design appropriate mitigation measures.

From its work areas, AIDMI captures and updates the following information which is useful in assessing vulnerability:

- Type of houses (*Kachcha*, e.g., houses with mud wall and thatched roof, etc.; *Pacca*: e.g., houses with cemented brick wall and concrete roof, etc.);
- Availability of facilities like electricity, toilet, etc.;
- Literacy rate;
- Household income;
- Prevalent illness;
- Expenditure for health;
- Employment statistics.

houses with cemented brick wall and concrete roof, etc.);

- Availability of facilities like electricity, toilet, etc.;
- Literacy rate;
- Household income;
- Prevalent illness;
- Expenditure for health;
- Employment statistics.

The information is shared with different stakeholders through GIS maps. Preparedness trainings periodically conducted by AIDMI promotes the fourth element (response capability) of an early warning system. These trainings help communities recognise natural indications of some approaching hazards like tsunamis and floods. The trainings also help individuals understand warning messages issued by government agencies and take appropriate actions to avoid losses. AIDMI has so far conducted such trainings at several places in Gujarat and Tamil Nadu. ■

⁶ For more information, visit <http://www.imd.ernet.in>

⁷ Disaster Management Centre (supported by UNDP), 2005. Towards a Safer Sri Lanka: Road Map for Disaster Management.

We do to Learn and Learn to do... the Aim is to Make Our Work Better⁸

Hyogo Priority 3

use knowledge, innovation and education to build a culture of safety and resilience at all levels

Why Manage Knowledge about Risk?

As the frontiers of development, disasters, and risk management expand, communities and practitioners face new types of challenges. Fortunately, the capabilities of dedicated groups to support disaster resilience are also expanding to meet these challenges and equip communities with tools and abilities to do so. This is done through a variety of knowledge management applications that typically fall under the categories of⁹:

- Information management and sharing
- Education and training
- Public awareness
- Learning and research.



Trainees brainstorm as part of a risk assessment of their village, Malumiyarpettai of Cuddalore District Tamil Nadu.

This section is a case study of Learning Resources that demonstrates a unique approach to learning from risk management.

Learning Resources - an Institutional Example of Managing Knowledge for DRR

The Learning Resources (LR) initiative of AIDMI is an institutional example of how learning for disaster risk management may be established and maintained. LR aims to:

- Develop capacities at all levels through context specific action learning community surveys, pilot initiatives, publications, courses, reviews, evaluations, advocacy campaigns, and consultations for disaster risk mitigation and reduction.

Research, Learning, and Publications

AIDMI's LR promotes learning and original research through publications, evaluations, reviews, and networking of stakeholders. Publications are developed monthly in three languages—Gujarati, Hindi, and English. These publications disseminate primary information and comment on current secondary reports and information about risk reduction.

- *southasiadisasters.net* is a collaborative publication to turn local tsunami recovery into regional disaster risk reduction for the poor. It is printed in English and has 32 issues to date. Topics include reviews and findings of major evaluations,

current issues and concepts, tools for decision-makers etc.

Reviews have been conducted on micro-insurance as a risk transfer option for the poor, temporary shelter and human security, livelihood options in recovery, and others. To encourage enhanced accountability to communities, Learning Resources conducts evaluations of relief interventions of foreign organisations. The UK Disasters Emergency Committee was evaluated in 2001 (following the Gujarat Earthquake) and in 2005 (following the Indian Ocean Tsunami). Other evaluations have been conducted of recovery and risk reduction efforts of Oxfam International, UN organisations,

⁸ Quote: Mihir R. Bhatt. AIDMI Information Sheet; 2003.

⁹ Benson, C. and J Twigg. 2007. Tools for Mainstreaming Disaster Risk Reduction: Guidance Notes for Development Organisations. Geneva: IFRC and ProVention Consortium.

and International Financial Institutions.

Over 40 editions of the Experience Learning Series (ELS) have been published in English, Gujarati, or Hindi. The focus of the series is on field level learning on issues including long-term recovery, urban food security assessment, and urban flash floods.

The Tsunami Evaluation Coalition (TEC) is a multi-agency global initiative aiming to improve the quality of humanitarian action, including linkages to longer-term recovery and development. AIDMI helped lead the TEC initiative in order to support accountability and learning in the context of tsunami recovery assistance. The Coalition conducted five thematic joint evaluations on needs assessment; coordination; funding; LRRD; and support for local capacities. LR helped guide the evaluation of the impact of the international response on local capacities and is now leading regional follow-up to the Coalition's evaluations.

The Training and Learning Circle is a new initiative that focuses on networking and supporting Asia's professional training assets. A unique effort of LR is their professional international exchanges. To date, over 50 young professionals, academics, and experts have worked at AIDMI from 18 countries and 17 universities.

Activities of Learning Resources related to advocacy are covered under this issue's discussion of Hyogo Priority 1.

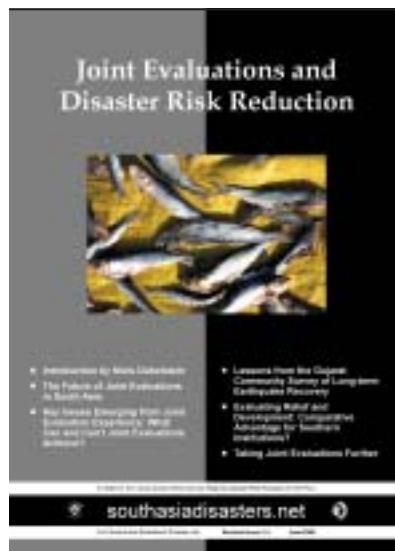
Education and training

AIDMI's Learning Resources has conducted over 219 local training courses covering over 5500 participants. Trainings have been held for *Panchayat* leaders, local decision-makers, volunteers, and



Community surveys help develop baselines and monitor recovery progress and evaluate appropriate intervention strategies.

local union leaders on key risk management topics including community-based risk mitigation, school safety, emergency medical response, standards in disaster response (Sphere project) and insurance schemes. Trainings have been held to strengthen community capacity in Gujarat, Tamil Nadu, and Jammu and Kashmir.



Learning products such as the periodical the southasiadisasters.net provide timely and original analysis of current topics and challenges in DRR from a southern perspective.

National and regional trainings have been conducted for disaster and development management practitioners, officials, community-based organisations, schools administrations, communities, volunteers, and others. Learning Resources has designed, developed and conducted the training courses on key topics such as Risk Reduction and Transfer in Disaster Recovery. Participants have included the University Basel, Switzerland and universities in UK. Government and NGOs from Sri Lanka, Pakistan, and Iran have received training from AIDMI's Learning Resources.

A critical area for risk reduction education is in schools. They are simultaneously buildings at-risk and potentially effective nodes for helping young people understand and communicate challenges of vulnerability and resilience measures. Learning Resources has trained teachers and administrators on how to increase resilience in their schools. They have also helped initiate the Safer Schools Campaign now active across India. ■

Never Confuse Movement with Action¹⁰

Hyogo Priority 4 *reduce the underlying risk factors*

The fourth priority area of the Hyogo Framework for Action encourages actors to work directly on reducing vulnerability, piece-by-piece. As with other priority areas, this requires efforts at all levels but the focus is on application of risk reduction tools developed under other priority areas.

Though AIDMI works both in the field and with research and learning, some of its most significant contributions have come in the form of application.

AIDMI Applies:

- A human security approach in long-term recovery, including focus on four component securities—shelter, water, food, and livelihood;
- Micro-insurance for nearly 6000 poor individuals as risk transfer from the poor to private insurance markets;
- Sustainable (and alternative) livelihood support with disaster-prone communities;
- Networking through Chamber of Commerce and Industry for Small Businesses (CCISB)—social and business empowerment;
- Mainstreaming gender concerns; and
- Social safety nets.

Each of these applications is important in its own way; however, this issue intends to provide readers in-depth information on *one* concrete example under each Hyogo Priority.

Readers should then be able to support similar initiatives as appropriate for their constituencies.

Afat Vimo: Transferring Risk from the Poor

A 2005 study by the International Labour Organisation indicated that more than 90% of the Indian population does not benefit from any kind of social protection.¹¹ Despite high and steady growth in the country, the cycle of disasters and vulnerability deprives many millions of poor of the human development that might have accompanied such growth. Diverting money is necessary to cover costs for relief and reconstruction. Additionally, large-scale recovery efforts are too often dependent on outside financial assistance that is often unpredictable. Groups that fail to recover fully are more vulnerable to subsequent disasters.

Insurance is a tool—often used among the rich—to reduce some financial losses to events like natural hazards but it is often not accessible to the poor due to the high transaction cost to affordable premium ratio. Micro-insurance is one of several tools that have emerged to provide the safety and preparedness aspects of insurance to the poor. Micro-insurance allows many individuals or groups to share the cost of a risky event¹² and puts cash into the hands of people so they can strengthen the rebuilding of their own livelihoods.

Afat Vimo-Gujarati for 'Disaster Insurance'-is an example of such a product developed by the All India Disaster Mitigation Institute (AIDMI).

Consultation with beneficiaries

The concept of *Afat Vimo* arose from a community survey conducted by

Added Value of Micro-insurance

AIDMI has been active in the field of disaster mitigation for more than 15 years and is one of the leading institutions in Asia concerned with disaster risk reduction. For more than two years, AIDMI has developed its own disaster insurance programme that is running in three States of India.

Most humanitarian activity is focused on the functioning of external aid. There has been much talk about disaster risk reduction, but very few examples of ways to reduce dependence on external aid. Disaster insurance provides a completely different approach. The idea is to transfer risk across wide groups of poor people acting in association with the insurance sector, and to engage governments in this process.

Tony Vaux
Humanitarian Activities, UK

10 Quote: Ernest Hemingway (1899–1961)

11 International Labour Office. (2005). India: An Inventory of Micro-insurance Schemes. Geneva: ILO.

12 Included in definition given by the Consultative Group to Assist the Poor. For more, see: AIDMI. 2006. Community Risk Transfer through Micro-insurance: An Opportunity for South Asia? *southasiadisasters.net*, issue 13. Ahmedabad: AIDMI.

AIDMI after the Gujarat earthquake in 2001. The survey indicated that despite livelihood inputs people felt vulnerable to further losses especially because of accident and small local disasters that did not attract external attention. The *Afat Vimo* package was designed in close consultation with local people and has been modified since then as a result of surveys and reviews in 2004 and 2006.

Lessons from the AIDMI Experience Transferring Risk:

AIDMI recently undertook a comprehensive review of its work on

risk transfer. Among the conclusions, the following are especially relevant:

- There is a convergence between the involvement of humanitarian actors in micro-finance and the awareness among micro-finance actors that they must take better account of disasters;
- Evidence from the review suggests that disaster insurance cannot be separated from other forms of risk reduction;
- Insurance companies are willing to offer a disaster insurance package that is affordable and attractive to poor people;

- Global insurance companies are keen to extend their business in the region and for poorer people;
- Governments are also keen to develop viable disaster insurance packages as an alternative to relief aid.

Challenges include the fact that the administrative cost currently falls on the implementing agency, and is not paid by the insurance market. The demand for the *Afat Vimo* has been growing; it currently covers over 5500. ■

Be Prepared; Be Ready to Respond Effectively

Hyogo Priority 5

strengthen disaster preparedness for response at all levels

What Disaster Preparedness Does:

The main objectives of strengthened preparedness are:

- 1) reducing or avoiding possible damages or threats,
- 2) being ready to assist those who have been adversely affected by a disaster and need help beyond their usual coping mechanisms, and

- 3) be able to act in a coordinated and organised way to evacuate at-risk communities.

Disaster preparedness is mainly done through planning and organisation of activities to ensure effective response to the threats and impacts of hazards. On the community level, preparedness involves activities like

development and regular testing of contingency plans, establishment of emergency funds, development of coordinated approaches for effective disaster response and holding up a continuous dialogue between response agencies, planners, policymakers and development organisations.

The allocation of necessary financial resources, especially emergency funds, is a further crucial issue. Furthermore, preparedness should include training issues about helping affected people. The IFRC for example works towards rapid application of humanitarian rights after disasters and emergencies and towards seeing that disaster preparedness plans are implemented.

AIDMI assists individuals and communities in disaster preparedness by offering trainings, workshops and publishing relevant lessons. They have designed trainings on over 30 different topics related to



Fire safety training for groups of school teachers and administrators help them react when emergencies occur.

local disaster risk management and preparedness issues. They range from women-led disaster relief to risk transfer through micro-credit as well as to community based emergency medical response and to safer building construction.

As some case studies indicate below, the trainings done by AIDMI give practical hints to the members of a community to be better prepared to act and help in case of a disaster.

School Safety: Teaching and Organising Preparedness

With the purpose of making schools safer, AIDMI organises trainings for school personnel, teachers and students to increase the awareness of the importance of school safety concerning safer building constructions, fire security, etc. Such trainings were held in five schools in the State of Gujarat and Tamil Nadu.

AIDMI conducted four trainings on Disaster Preparedness for School Safety in Tamil Nadu in 2006. The course was attended by 57 teachers and administrators of primary, middle and higher secondary schools. The main objective of the trainings was to make schools better prepared and informed against disasters as well as to assist schools in developing their own emergency response plan.

Training in School Safety after the Tsunami 2004: Safer Building Construction Trainee Teaches the Youth

A man attended training on shelter and house security improvement. After receiving it, he had prepared a group of youths for taking precaution from cyclones. All big trees that could break houses, temples, school buildings or homes were trimmed. He also trained the youths to measure the water of pond in his village by inserting rods and started alerting the villagers regarding the rise of water. Furthermore, he created awareness regarding preparedness and mitigation like vacating the low-lying places and shifting belongings to higher places as well as always keeping torch accessible.

The course included the following issues:

- Introduction to disasters faced in India,
- Community-Based Disaster Risk Management and Need for School Disaster Preparedness,
- Planning of Disaster Mitigation for School Preparedness, and
- Spreading Scientific Awareness on School Safety among students.

After being given an overview of the disaster situation in South Asia and about risk management, the participants learned in a group exercise how to organise a task force and prepare a management plan concerning school disasters. Then, everyone involved was given a demonstration of first aid, fire safety

and rescue training. The trainer demonstrated the use of a fire extinguisher as well.

Action taken after training

After attending courses about Disaster Preparedness and School Safety, some Gujarati participants took their own initiative to set up safety projects.

A father began to coordinate with other parents to monitor the repairing of School Street and a teacher installed first aid equipment in her school and formed a disaster mitigation team. She also created trainings to raise the awareness about disaster preparedness among children.

Furthermore, one school constructed a small canal into a school playground for taking out excess water from the school building in case of an emergency.

Conclusion

As shown above, different types of knowledge and skills acquired in training from AIDMI are used in "mini-disasters" in the participants' day-to-day lives as well as at times of larger community-scale disasters. Often, as in the case of the participant on safer building construction, the trainees do not just keep the training issues for themselves but do create

Emergency Medical Response Trainee Saves a Life

A woman who attended three training programmes about first aid was later capable of taking over a leading role in giving first aid. This was even useful when she was on the way to a neighbouring village and saw a person on scooter dashed against a bus and got both legs cut. She immediately approached the injured man and, according to the symptoms taught in the training, identified that the waist had been affected. She guided people how to handle the patient and took him to civil hospital. On the way, she gave the artificial breathing and saved the patient. Later on in hospital, she was able to contact the patient's relatives and inform them correctly about the event. Prior to training, she was afraid of taking action in such incidences because of a lack of knowledge and practice.

awareness about it among their communities. This strengthens the "we" feeling and an attitude of "what I can do" instead of "what will I receive?" is developed.

To be prepared means to be ready to act and that makes the community feel less helpless regarding hazards and disasters.

Discussion Points:

1. The establishment of national and state policies on risk management are critical. The policy development is also often isolated from the poor people that the policies are intended to benefit. As relevant or reliable data is often unavailable, what are creative methods for assessing and comparing risk?

2. What is needed to see and rate impact of policy initiatives in DRR?
3. When a national government has a risk management plan, who should measure its impact? Are examples available where this has been done externally with full independence?
4. How can the international community set incentives for governments with disaster risk management policies to demonstrate results and learning?
5. The identification and assessment of risk is critical for measuring impact or reduction initiatives. Are methods established for rapid identification of local level risks on a large scale?

6. Risk is sometimes a result of development efforts, especially risks that arise from migration. What experiences are available regarding the monitoring of risks that emerge over time?
7. Primary research on how poor communities themselves perceive risk, and their own traditional methods to reduce it, is in under supply. Are we sure that when global projects have impact that they are not simply replacing existing impact?
8. Case studies and other qualitative methods are helpful for measuring and evaluating impact of risk reduction on small scales. What appropriate methods and indicators are available for tracing **large-scale** impact in knowledge management efforts? ■

RESOURCES ON RISK REDUCTION AND MICRO-FINANCE

Resilience among the Poor through Loans, Savings and Insurance

Substantial evidence is available from across the globe that micro-finance products and services have the potential to empower the poor, particularly the poor women in rural areas, in acquiring skills, confidence and capacity to undertake activities that can significantly lift them above the poverty line.

There is also evidence that micro-credit groups of the poor have done better in coping with natural disasters although disasters like the Indian Ocean tsunami of December 2004 badly crippled their activities.

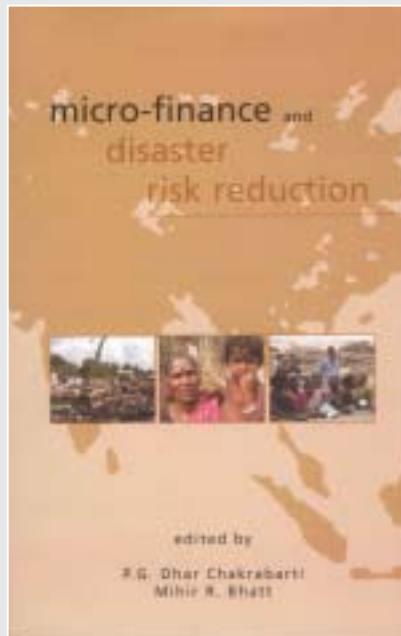
In the immediate post-disaster phase when relief and rehabilitation assistance pours in, micro-finance plays a marginal role, but when the supply of dole dries up, the poor have to fend for themselves. In this critical phase of recovery, micro-finance assumes even greater importance in supplementing other efforts for livelihood restoration and sustainable development.

This volume, which draws from the contributions in an international workshop in Delhi during 2005, is an important addition to the very limited literature available on the subject.

It is edited by **P.G. Dhar Chakrabarti**, Executive Director, National Institute of Disaster Management, New Delhi and **Mihir R. Bhatt**, Honorary Director, All India Disaster Mitigation Institute, Ahmedabad.

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AIDMI Began Low Premium Schemes in 2004 to Cover Slum-dwellers, Enterprise in Disaster-hit Areas

Micro-insurance schemes work wonders for them

When 22-year-old Amadbhai Katiyar from Kajlinagar slum in Bhuj, who ran a small confectionery business, died in October 2004 after a prolonged bout of jaundice, his family lost their breadwinner.

But for Amad's father Manad Kasam, who had to take care of his mentally challenged wife, an unemployed son and two grandchildren, the All India Disaster Mitigation Institute's (AIDMI) micro-insurance policy, under which Amad was covered, came as timely help.

Amad had himself insured under the policy, which got his family a one-time payment of Rs. 20,000. The amount enabled his younger brother to purchase stock for their confectionery business and the family was able to get back on track on a normal course of life.

Targeted at people of the lowest strata of the economic rung, the micro-insurance programme initiated by AIDMI is injecting life into many families like Amad's across the country.

Talking to 'Newsline', Mehul K. Pandya, co-ordinator, regional risk transfer initiative, AIDMI, said that the initiative evolved as a response to risks faced by people of the lower income group in disaster prone areas.

"We saw that while a lot of money is spent on relief works after major disasters, risks that these people face



Amadbhai Katiyar, Kajlinagar.

are not covered by any market-related mechanism," said Pandya.

"To understand the situation better, we conducted a survey among stakeholders in Gujarat and five basic risks surfaced: house, house contents, personal accident, stock in trade and death," Pandya said.

He added that while these risks were a cause of concern for most of the people interviewed, very few insurance companies, when approached by the institute, were ready to cover these people and their risks.

"The sin-qua-non or prerequisite for these kind of insurances being a low premium and good return, the companies found it to be too heavy on their operational costs," Pandya said.

Finally, Life Insurance Corporation (LIC) and Oriental Insurance came forward to extend the schemes to slum-dwellers. "Right now, United

India Insurance is extending its support on non-life insurance under this programme," he added.

Targeted mostly at slum-dwellers and small businesses in disaster-prone areas, the scheme charges between Rs. 215 to Rs. 250 as annual premium. However under the five risk categories, almost Rs. 95,000 is assured under the scheme, Pandya pointed out.

Initiated in 2004, so far AIDMI has settled 131 claims under various heads, disbursing more than Rs. 8,00,000. This included 23 death claims, 84 flood claims, two cyclone claims and one earthquake claim from all over Gujarat.

"When we had started in 2004, we had about 1000 clients in Gujarat, today we have more than 3500 clients in Gujarat, besides hundreds of clients in Tamil Nadu and Jammu and Kashmir," Pandya said. He added, "While we pay the premium to the insurance companies in advance, we collect the money from the clients later."

"We initiated this scheme in Gujarat on an experimental basis," Pandya said adding that now they were extending the scheme across Tamil Nadu, Jammu and Kashmir and other disaster-prone areas of the country.

"We are also training some NGO's from Sri Lanka and Iran to initiate such schemes in their countries," Pandya added. ■

(Source: Indian Express; February 8, 2007)

Risk Transfer: Promoting Disaster Insurance in Low-income Countries

Key Objective:

The key objective of the workshop was to investigate the strengthening of the relationship between risk transfer and risk reduction while examining the role of risk transfer as a key component of disaster risk reduction.

Micro Approaches:

Panellists: K. Narendra, DHAN Foundation, India; Shadreck Mapfumo, Opportunity International Network, Malawi; Mehul Pandya, All India Disaster Mitigation Institute (AIDMI). Moderator: Daniel Kull.

The poor amongst disaster victims are repeatedly exposed to and affected by disaster. They are also perpetually restricted in their access to vital financial services such as micro-insurance. The humanitarian acts are packed into a 'project' with a clear-cut beginning and a perfect end. Humanitarian actors initially provide relief and leave to provide relief to someone else. Therefore, after this initial/short-term relief, communities and their small but important assets remain exposed to risk. This is odd. Can micro-insurance help accelerate victim's own recovery efforts? Can it help secure recovery? A comment was made that people do spend a lot of money in protecting themselves so this can be harnessed and better managed through micro-insurance.

The presentations included examples of micro-insurance schemes such as an index-based weather insurance product for groundnut farmers in Malawi by the Opportunity International Network, AIDMI's *Afat Vimo* (disaster insurance) scheme and 'mutual micro-insurance' model adopted by the DHAN foundation in India. These examples were shared to demonstrate that micro-insurance



In the ProVention Forum 2007 in Dar-es-Salam, Tanzania practitioners gathered to share experience on micro-insurance as an option for transferring risk from the poor.

products have immense potential for disaster risk reduction at micro-level, especially in low-income countries of Asia and Africa. **The panellists found that there is a substantial lack of viable options for transferring risk available to the poor at micro level. For example, the proportion of disaster losses in 2005 covered by insurance was 51 per cent and 30 per cent for the USA and Europe, respectively. Over the same period, only 5 per cent losses faced in Asian counties were covered by insurance¹³.** A comment was made that in the US mandatory insurance tied to loans and financing has helped in reducing disaster induced financial losses. In general, mandatory/some level of compulsion was considered important in order to enhance application of insurance for disaster risk reduction.

The panellists acknowledged that **development of risk transfer schemes at micro level faces a number of challenges including a lack of reliable information base, affordability, accessibility, low levels of awareness, expansion/up scaling of pilot projects, and sustainability,**

including addressing lower renewal rates. Integration of risk reduction and cost-cutting/reduction measures was considered important in order to ensure viability of micro-insurance from commercial point of view to penetrate rural and isolated communities and make insurance affordable for the poor. Provision of fire safety measures, fertilisers, hybrid/disaster resistance seeds, adaptation of safer construction practices, access to credit facilities, and capacity building inputs can help low income groups reduce their risks.

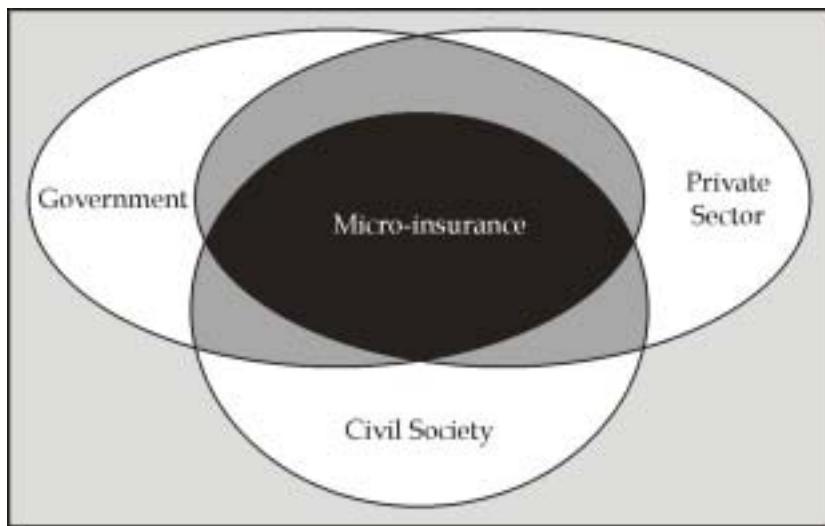
Discussions revealed that **micro-insurance cannot be used as stand-alone measure for risk reduction. Bundling of insurance products with other micro-finance products (savings, credit etc.) and non-financial services came up as a crucial factor in sustaining risk transfer models at the micro-level.** To succeed, both, poverty and risk must be reduced. This revealed a direct link between poverty reduction and disaster risk reduction.

The role of governments in order to overcome these challenges was considered central in terms of creating

13 Munich Re Group's Annual Review: Natural Catastrophes 2005.

enabling regulatory environment, offering incentives to insurers, making investment to enhance application of index-based weather insurance, as well as subsidising cost of micro-insurance products. Government was considered as the ultimate insurer in catastrophic risks. Over the issue of government-subsidised products, a comment was made that **government subsidisation of micro-insurance products has not worked anywhere except the OECD countries**. Additional comment was raised that **too cheap insurance product may discourage risk reduction and may not be sustainable in a longer run, especially in Asia and Africa**. However, it was mentioned that **subsidies are useful to penetrate in weaker communities and build culture for insurance**.

A concern with long-term sustainability of AIDMI's *Afat Vimo* scheme was raised. It was mentioned that \$4 premium for \$2000 of coverage means a 500 year payback for the insurance company. Usually you want a 10-20 year payback from commercial perspective. In response, a comment was made about insurance companies generating enough profit out of the scheme to continue providing coverage. **High danger of achieving very low levels of penetration was mentioned as a caution as most of the poor in Asia and Africa cannot afford costly schemes to meet technical standards set up by an insurer**. Additionally, a wider view of 'sustainability' will indicate the importance of subsidised insurance as is common practice in many developed and developing countries alike. "Sustainability" should not only be seen in the narrow view. As the private sector will not continue with a loss-making or technically not sound product. Therefore, the burden of lowering premiums to affordable levels lies primarily with governments (local and donors), international organisation and NGOs. A comment was made that **low levels of market penetrations may not achieve financial viability of any risk transfer**



Micro-insurance: a multi-stakeholder tool?

scheme. Sound premium and sound intermediary agencies were considered important from the sustainability point of view.

Macro Approaches

Panelist: Ulrich Hess, World Food Program; Alex Lotsch, World Bank; Peter Maina, Swiss Re Southern Africa (only participant from the private sector). Moderator: Daniel Kull.

The second half of the workshop on "Risk transfer: Promoting Disaster Insurance in Low-Income Countries" focused on macro level perspectives and examples.

It was explained that **the reinsures are willing to innovate and cover disaster risks through public-private partnerships**. However, challenges related to regulatory environment, moral hazards, low levels of awareness, and adverse selection often discourage them. It was mentioned that reinsures must get returns to sustain themselves. Thus, optimum way of risk sharing has to be identified and practiced. The case of the Mexico where government had insured earthquake peril with a reinsurance company was referred as a good practice example. Similarly, the Turkish Catastrophe Insurance Pool (TCIP) funded by the original insurer was mentioned as useful initiative. The example of South

African riot insurance pool was mentioned as an interesting example of risk transfer and risk pooling. It was mentioned that government interventions are key for enhancing private sector efforts in financing disaster risks.

From the reinsurance point of view, it was believed that a certain degree of compulsion to build a larger pool of clients is essential for risk spreading and financial viability. Minimum participation of the insured and incentives for risk reduction must be identified and encouraged. Sound professional risk management practices adhering to actuarial and legal standards were thought of as crucial factors in ensuring long-term sustainability of insurance for masses. **It was suggested that we should deliberately look for negative correlations/uncorrelated risks to balance and manage risk pools to overcome the challenge of covariant risks. In terms of natural hazards, geographical diversification can support the pooling of uncorrelated risks.**

The role of index-based insurance was considered important from the point of view of timely payouts to sustain livelihoods of the affected in case of a disaster. **It was discussed that index-based insurance products have an edge over the traditional insurance**

as it offers a more scientific basis and allow payouts in an equitable manner. However, lack of reliable information base (weather stations) was mentioned as key hindrance in promoting the use of index-based insurance products in most of the developing countries. The case of Ethiopia was referred as a good practice example where construction of good index offering real-time data contributed in gaining private sector interest and investments. It was suggested that it is possible to use the Livelihood Protection Index (LPI) to protect and cover disaster-induced financial losses of the victims.

The work of Commodity Risk Management Group (CRMG) and examples of Global Index Reinsurance Facility (GIRF) and Caribbean Catastrophe Risk Insurance Facility (CCRIF) were shared to explain how the World Bank is trying to innovate in designing public-private partnerships to build capacity of national stakeholders to link with international markets. It was mentioned that these initiatives are often driven by post-crisis forces and require a strong institutional basis to sustain momentum. **Finding sustainable mechanisms, creating**

incentives for risk reduction, balancing public-private roles and responsibilities, and making up-to-date as well as historical data available to decision-makers were discussed as key challenges for risk modelling and risk transfer at the macro level. It was mentioned that lack of data management capacity in developing countries often results into low levels of market penetration. It was suggested that governments should be encouraged to participate in catastrophic risk pooling mechanisms and must pay for it. However, discussion revealed that it is difficult for governments to realise long-term gains and often withdraw themselves in investing such large-scale operations.

Key Conclusions:

Risk transfer decreases the need for disaster aid and it offers means that are more dignified to poor to cope than relying on external aid. **Both, at micro and macro levels, affordability, access, service delivery, lack of reliable information base, up-scaling pilot projects, and sustainability of insurance products were discussed as key barriers in extending insurance coverage to the disaster prone communities.** Development of basic infrastructure

facilities such as weather stations to support index-based insurance products by governments was considered important.

We must remember that risk transfer is just an instrument and should not be viewed as complete solution. Risk transfer mechanisms should be part of a greater disaster management strategy and bundled with other financial services and risk mitigation measures. A symbiotic relationship between risk transfer and disaster risk reduction is needed.

Insurance can replace losses but may not help the notion of 'building back better' or improving quality of life in a significant way. At the most, it can help bringing back communities where they were before. To address these key challenges/concerns, a greater need for learning across disaster events and stakeholders including governments, insurance companies, and civil society organisations was suggested as a way forward. Developing a culture of insurance, just like establishing a culture of prevention, is a long process that requires not only the educating of all stakeholders, but also an understanding of the local priorities and needs. ■

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