International Strategy for Disaster Reduction

Disaster Reduction in Asia & Pacific

ISDR INFORMS

Issue 2, 2006

The 2004 Indian Ocean Tsunami: One Year Later

Education in Disaster Preparedness - Global & Regional Disaster Reduction News
The Hyogo Framework for Action - Partnerships & Initiatives - Resource Rights

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Disaster Reduction in

Asia & Pacific

ISDR INFORMS

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A magazine from the United Nations International Strategy for Disaster Reduction that covers the field of disaster prevention and mitigation for all people of the Asia Pacific region.

Aceh 2005. Photo, OCHA/Joerg-Meier

International Strategy for Disaster Reduction

Editorial

By Mr Kim Hak-Su,
United Nations Under-Secretary-General and Executive Secretary,
Economic and Social Commission for Asia and the Pacific (UNESCAP)

"UNESCAP is pleased to welcome the publication "Disaster Reduction in Asia and the Pacific – ISDR Informs" as part of joint efforts to promote the implementation of the Hyogo Framework for Action (HFA), 2005-2015, which was adopted at the World Conference on Disaster Reduction (WCDR) in January 2005. For Asia and the Pacific, one of the most disaster-prone regions of the World, this kind of effort is necessary to maintain the momentum and interest in disaster risk reduction generated by WCDR and to mobilize resources and commitment for more effective regional partnership in the implementation of HFA.

Since WCDR, the region has witnessed a significant increase in cooperation between UNISDR and UNESCAP as well as other relevant regional partners in the promotion of disaster risk reduction. UNESCAP is pleased to host the newly established UNISDR Regional Office for Asia and the Pacific within the United Nations complex in Bangkok, (where several UN Agency partners are already located) and warmly welcomes strengthened collaboration with the UNISDR Secretariat on disaster risk reduction related issues. This new physical proximity indeed facilitates greater interagency interaction and has already led to several joint activities related to the implementation of HFA and the integration of disaster risk reduction and mitigation into the development of tsunami early warning systems.

It is noteworthy that, in all these joint activities, cooperation between the UNISDR Secretariat and UNESCAP is linked to the promotion and revitalization of the UNISDR Asia Partnership, which includes UNDP, OCHA, ADPC and ADRC, for a more effective and sustainable impact of disaster risk reduction at the regional level.

A joint concerted action is indeed extremely valuable, as the region has witnessed a sharp increase in the economic cost of natural disasters during the past 15 years. Over the course of the past 15 years, the annual damage has nearly tripled to US$ 29 billion from an annual average of US$ 10.6 billion during the past five decades. Moreover, in the period 1900 to 1985, economic loss due to natural disasters in the region accounted for 25 per cent of the total world economic loss due to natural disasters. This economic loss for the region has now increased to 49 per cent of the total world economic loss due to natural disasters for the period 1900 - 2005.

In that context, UNESCAP foresees opportunities for greater synergy of regional efforts, such as those related to the enhancement of public awareness in disaster risk reduction which UNESCAP has been carrying out annually since 1990 to commemorate the International Day for Disaster Reduction.

UNESCAP has now taken up a more active role in disaster risk reduction in the region through the establishment of a regional trust fund to support early warning arrangements for tsunamis and other natural hazards in the Indian Ocean and South-East Asia and the development of pilot projects on building community resilience to natural disasters through partnership.

With the strengthening of UNESCAP engagement in disaster reduction in collaboration with UNISDR, the UNISDR Asia Partnership members and other valuable regional partners, I look forward to a new era of high-impact partnership on disaster risk reduction in the Asia and Pacific region and welcome this publication as an illustration of the wealth of expertise and knowledge in disaster risk reduction in our region."

UNISDR INFORMS

This third issue of "Disaster Reduction in Asia Pacific – UNISDR Informs" is an exceptionally thick edition as it compiles information on all relevant disaster risk reduction events and initiatives that took place in the Asia and Pacific region since the 2004 Indian Ocean Tsunami and the 2005 World Conference on Disaster Reduction (WCDR - January 2005, Kobe, Japan). It includes in particular a detailed "Special Report" on tsunami related activities in the region as well as basic information on the outcome of the WCDR.

The UNISDR Secretariat took the opportunity of its newly established presence in Asia and Pacific as of July 2005 within UNESCAP in Bangkok, to initiate contacts with regional and national partners and come up with the proposed overview of regional activities on disaster risk reduction as well as an initial reporting process on the implementation of the Hyogo Framework for Action (HFA) in the region.

In view of the above, some articles had to be left out for this edition but will definitely be incorporated in future editions, which are expected to be issued on a bi-annual basis and thus report back on a six-month period only.

We take the opportunity to express appreciation to those partners who provided us with substantive contributions and photos and look forward to maintaining this fruitful cooperation with all of you to make sure that the wealth of expertise and knowledge of the Asia and Pacific region in disaster risk reduction and disaster management is well reflected at the regional and global levels as well as fully preserved and enhanced, for an increased protection and resilience of the vulnerable communities of our precious region to future disasters.

– The UNISDR Asia Pacific Team

UNISDR INFORMS

Disaster Reduction in Asia & Pacific - UNISDR Informs is a collaborative effort of the Asian Disaster Preparedness Centre (ADPC), Asian Disaster Reduction Centre (ADRC), UN Economic Commission for Asia and the Pacific (UNESCAP), UN Development Programme (UNDP) Regional Centre Bangkok, UN Office for the Coordination of Humanitarian Affairs Regional Office for Asia Pacific (UNOCHA-ROAP) and the UN International Strategy for Disaster Reduction for Asia & Pacific (UNISDR Asia & Pacific) who, together, represent the ISDR Asia Partnership.

Disaster Reduction in Asia & Pacific - UNISDR Informs is produced on a bi-annual basis. Please send comments and contributions to *isdr-bkk@un.org*

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Further information on the ISDR Asia Partnership is available at *www.unisdr.org/asiapacific*

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- **UNDP Regional Centre Bangkok** *www.regionalcentrebangkok@undp.org*
- **United Nations Economic Commission for Asia and Pacific (UNESCAP)** *www.unescap.org*
- **United Nations Office for the Coordination of Humanitarian Affairs Regional Office for Asia and the Pacific (UNOCHA-ROAP)** *www.ochaonline.un.org/roap*
- **United Nations International Strategy for Disaster Reduction (UNISDR) Asia & Pacific** *www.unisdr.org/asiapacific*

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UNISDR Global

2005 World Conference on Disaster Reduction: a milestone in disaster reduction's history.

The Second World Conference on Disaster Reduction (WCDR II) took place in Kobe, Japan, from 18 to 22 January 2005. Convened through Resolution A/RES/58/214 of the UN General Assembly, the Conference made plans for the following 10 years, after taking stock of the progress accomplished in disaster risk reduction since the First World Conference held in Yokohama, Japan, in 1994.

The Conference was held at a time when the world was still mourning the victims of the unprecedented Indian Ocean tsunami disaster that had occurred 23 days before. This led UN Secretary-General Mr Kofi Annan to say: "Rarely has a tragedy made a conference so topical and timely as this one."

THE PREPARATORY PROCESS

As the UN General Assembly had requested the UNISDR Secretariat to serve as the Conference secretariat, a special unit was established within the UNISDR Secretariat to coordinate the entire process. An open-ended Preparatory Committee was also established, led by a Bureau consisting of five UN Member States representing regional groups, plus the host country (Japan) as an ex-officio member. The Bureau led the discussions in reviewing organizational and substantive preparations for the Conference.

The first session of the Preparatory Committee took place in Geneva in May 2004, following the Ninth Session of the UN Inter-Agency Task Force on Disaster Reduction (IATF/DR). A second session, which was held in October 2004 also in Geneva following the Tenth Session of the IATF/DR, served as a vehicle to support substantive discussions at WCDR II. Between the Preparatory Committee sessions, a number of consultations were held under the guidance of the Bureau.

Substantive contributions to the Conference were also made through different channels:

1 An *online dialogue* with support from UNDP from 15 June to 15 July 2004 to discuss priority areas for further action to implement disaster risk reduction in 2005-2015. The outcome of the discussion contributed directly to the review of the 1994 "Yokohama Strategy and Plan of Action for a Safer World" and indirectly to intergovernmental consultations on a proposed 2005-2015 framework for action that preceded the Conference.

2 As the substantive participation of national authorities was crucial for making the Conference productive, the UNISDR Secretariat requested national governments to provide *national reporting and information* on disaster reduction, which encouraged national authorities and platforms for disaster reduction to provide information to identify needs and elaborate policy recommenda-

tions for the preparatory process of the WCDR.

3 Discussions held in a number of *regional and thematic meetings* organized by partner agencies in various locations contributed to the preparatory process from their relevant perspectives.

4 A *Drafting Committee*, established by the Preparatory Committee, was entrusted with the oversight and production of the Conference outcome documents: the Review of the Yokohama Strategy, the Hyogo Framework for Action 2005-2015, and the Hyogo Declaration. The latter two were negotiated by the Committee in Geneva, then by the Main Committee in Kobe. The first meeting of the Drafting Committee was held on 9 November 2004 in Geneva, and was followed by several more meetings until 17 December 2004. The drafting work was then passed on to a Main Committee that was created by the Conference in Kobe, and which finalized the two negotiated texts. The Conference took note of the Yokohama Review and approved the Hyogo Declaration and Hyogo Framework for Action. The Drafting Committee and the Main Committee were chaired by Mr Marco Ferrari of Switzerland.

5 In the course of consultations and discussions, the UNISDR Secretariat received a variety of inputs from civil society. An *awareness campaign* was also organized to alert the media about the Conference and to brief them on the importance of disaster risk reduction. This effort in media relations focused particularly on a series of natural disasters during the autumn and winter of 2004-2005, culminating with the Indian Ocean tsunami on 26 December 2004.

> "Rarely has a tragedy made a conference so topical and timely as this one."
>
> **Kofi Annan**

PROCEEDINGS

The Conference was composed of three main processes: an intergovernmental segment, a thematic segment and a public forum.

Intergovernmental Segment

The Intergovernmental Segment, with delegations from more than 160 UN Member States, provided the venue for delegates to make general statements on disaster reduction issues. In addition to the Plenary, a Main Committee (Drafting Committee) was held for negotiation and drafting purposes. The chairperson of the Drafting Committee presented the final texts of the negotiated outcome documents (Hyogo Framework for Action and Hyogo Declaration) to the Conference on the last day of the Conference for adoption by the WCDR.

Thematic Segment

The Thematic Segment was formatted to complement discussions on programme outcome at intergovernmental level. The Thematic segment consisted of three High-Level Round Tables and a number of Thematic Sessions clustered under five Thematic Panels, as well as Regional Sessions. A large number of events took place under this segment, which provided the substantive part of the Conference, in all areas related to disaster risk reduction. The panels were led by government representatives with the support of various agencies.

Public forum

The Public Forum, open to the general public and Conference participants, consisted of workshops, exhibition booths and poster sessions. With approximately 40,000 visitors and general participants, the Public Forum provided opportunities to promote organizations'

own activities through presentations, posters and a public exhibition, engaging in open debates, seminars and a variety of events. Organizers included governments, UN agencies, international organizations, NGOs, technical institutions and the private sector.

Special Session on the Indian Ocean tsunami
In view of the tragic consequences of the December 2004 tsunami that devastated the coastal communities and areas of the Indian Ocean region, the World Conference on Disaster Reduction dedicated a Special Session on the Indian Ocean Disaster: Risk Reduction for a Safer Future. The session welcomed many statements by tsunami affected countries representatives and adopted a Common Statement highlighting the important role to be assumed by the UNISDR in identifying, analyzing and disseminating all the lessons learnt from the recent tsunami disaster in order to increase the resilience of coastal communities to tsunami hazards and mitigate the impact of disasters of similar magnitude in the future. The Special session also recommended to increase regional cooperation and coordination mechanisms to effectively address the impact of natural disasters and invited international organizations to integrate regional disaster reduction strategy into their work programmes. On that occasion, the Government of Germany offered to host a Third International Conference on Early Warning to be held in 2006 in Bonn, Germany. A minute of silence was observed at the opening ceremony of the Conference in memory of the victims of the Indian Ocean disaster.

OUTCOMES

The following four key documents, adopted by the 168 UN Member States represented at the Conference, were the main outcomes of the January 2005 Second World Conference on Disaster Reduction: .

1 *Review of the Yokohama Strategy and Plan of Action for a Safer World:* The Yokohama Review is an analysis of progress achieved from 1994 (when the Yokohama Conference took place) to date. The document reflects the current state of awareness and achievements, limitations and constraints; it presents consolidated observations about global disaster risk reduction.

2 *Hyogo Framework of Action 2005-2015: Building the Resilience of Nations and Communities to Disasters*: Based on lessons learned and gaps identified in the review process of the Yokohama Strategy, the Hyogo Framework identifies five priorities and a number of concrete and specific measures that require implementation at local, national and international levels in the 2005-2015 decade.

3 *Hyogo Declaration*: The Declaration reflects a political will to increase attention to disaster reduction and recognizes that it is critically important that the Hyogo Framework for Action be translated into concrete action at all levels to reduce disaster risk and vulnerability.

4 *Common Statement of the Special Session on the Indian Ocean Disaster: Risk Reduction for a Safer Future:* The Statement "emphasizes the need for the International Strategy for Disaster Reduction to identify, analyze and widely disseminate all the lessons learnt from the recent tsunami disaster". It requests the secretariat of the International Strategy for Disaster Reduction to submit a report to the 2005 substantive session of the UN Economic and Social Council (ECOSOC) and the sixtieth session of the UN General Assembly. It also "requests the Economic and Social Council to include regional disaster reduction mechanisms into the agenda of the humanitarian affairs segment of its 2005 substantive session."

The four documents represent a strong commitment of the international community to address disaster reduction and engage in a determined and result-oriented plan of action for the following decade 2005-2015. The Hyogo Declaration, Hyogo Framework for Action 2005-2015 and the Common Statement are part of the Report of the Conference. ●

The above documents as well as relevant information on the WCDR II, including the Conclusion Report, can be accessed at www.unisdr.org/wcdr

Towards a strengthened UNISDR System

The adoption of the Hyogo Framework for Action 2005-2015 (by the 2005 World Conference on Disaster Reduction) has given impetus to disaster reduction activities worldwide. Governments, UN agencies and regional organizations have begun redefining national, sub-regional and regional plans and strategies and setting up promotional campaigns and institutional plans for further action.

As agreed in the Hyogo Framework, the UNISDR System will work with national, regional and international partners in carrying out support functions to provide coordination and assistance in the promotion of the implementation of the Hyogo Framework. To be able to carry out its work in the light of the Hyogo Framework, a number of steps have been and are being taken to strengthen the UNISDR System.

The main elements of the proposed strengthened system are:

■ *A global forum* called Global Platform for Disaster Risk Reduction with participation of Governments in addition to UN agencies, regional organizations and civil society. Its particular role is to advise on and commit to support the implementation of the Hyogo Framework, and to guide the various associated networks and platforms (this builds on the UN Inter-Agency Task Force on Disaster Reduction, functioning from 2000 to 2005). It has a Programme Advisory Committee (PAC) to ensure programmatic support and coherence. An integrated work programme for the

UNISDR System will be developed by PAC, supported by the UNISDR Secretariat.

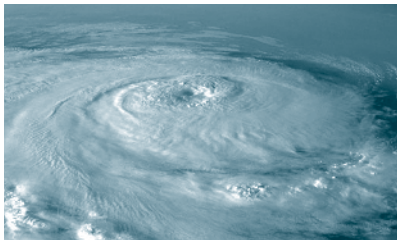
■ *A Management Oversight Board (MOB)* that provides advice on strategic, managerial and resource mobilization issues to the Under-Secretary-General for Humanitarian Affairs in his functions as chairperson of the UNISDR System, with a representative of the United Nations Development Group (UNDG) as vice-chairperson.

■ *The UNISDR Secretariat* as an independent entity within the UN Secretariat, with a line of accountability to the Under-Secretary-General for Humanitarian Affairs, to serve as "honest broker", catalyst and main focal point within the UN System on disaster risk reduction issues, to continue to promote ownership and commitment to disaster risk reduction with national, regional and international constituencies, and report on progress.

■ *National Platforms* for Disaster Risk Reduction defined by Governments in each country, with designated responsibility as national forums for coordination and follow-up for Hyogo Framework implementation and with appropriate links to UN Country Teams, where applicable.

■ *Regional networks or coordination platforms* for disaster reduction cooperation at regional and sub-regional levels, including inter-agency task forces and networks of national platforms, for coordination and mainstreaming of disaster risk reduction in regional settings, and for advocacy and information networking.

■ *Thematic platforms or networks of expertise* in support of priority areas identified in the Hyogo Framework, led or supported by the Global Platform. ●



World campaigns for disaster reduction

THE 2005 WORLD CAMPAIGN

In 2005, the World Campaign for Disaster Reduction focused on "Invest to Prevent Disaster". The 2004 Indian Ocean tsunami, Hurricane Katrina in the United States and the earthquake in Pakistan and India demonstrated once again that the poor usually suffer most from disasters occurring from natural hazards, as they often live and work in highly vulnerable locations. Investing in disaster risk reduction reduces the vulnerability of people to hazards and helps break the vicious cycle of poverty. Microcredit is a useful tool for poverty reduction, but its potential to reduce the impact of disasters needs to be further explored. To that end, the UNISDR requested experts and colleagues from various backgrounds to share their points of view on the issue and to guide the disaster management community in utilizing microfinance as a tool to improve livelihood options and reduce poverty. It has hardly been used yet as a tool for reducing risk vulnerability to natural hazards. Leading up to the International Day for Disaster Reduction (12 October 2005), the UNISDR Secretariat engaged into an interesting dialogue with the microfinance community on the possibility of using these tools to reduce disaster risk and increase community resilience to disasters. These are summarized in 10 conclusions available in detail in the Campaign Kit, illustrating many successful examples of disaster risk reduction through microfinance. *Some case studies and experts opinions are available on the UNISDR web site.*

THE 2006-2007 WORLD CAMPAIGN

In 2006, the UNISDR decided to launch two-year awareness-raising campaigns on disaster risk reduction rather than annual ones. The aim is to facilitate long-term action to mainstream disaster risk reduction into specific sectors and national agendas. These campaigns aim to raise awareness, mobilize action and harness existing practices to reduce loss of life, livelihood as well as social and environmental losses caused to communities and nations as a result of disasters. The two-year campaigns' themes reflect the five priorities outlined in the Hyogo Framework.

The 2006-2007 World Campaign for Disaster Reduction's theme – "Disaster Risk Reduction Begins at School" – has been chosen in response to a call made through the Hyogo Framework for Action (HFA) to make disaster reduction education a priority of national agendas to mitigate the impact of disasters and reduce the vulnerability of communities living in disaster-prone areas.

When a natural hazard strikes, children are among the most vulnerable groups, especially those attending school in times of disaster. In all societies, children represent hope for the future. By extension, schools, because of their direct link to youths, are universally regarded as institutions of learning, for instilling cultural values and passing on both traditional and conventional knowledge to younger generations. Protecting our children during natural hazards therefore requires two distinct yet inseparable priorities for action: disaster risk education and school safety.

To inform and insure the future of our communities, the UNISDR Secretariat and its partners have made disaster risk education and safer school facilities the two key themes of the 2006-2007 World Disaster Reduction Campaign. The Campaign, entitled "Disaster Risk Reduction Begins at School", aims to inform and mobilize Governments, communities and individuals to ensure that disaster risk reduction is fully integrated into school curricula in high risk countries and that school buildings are built or retrofitted to withstand natural hazards.

The Campaign will last for two years, through to the end of 2007, but it continues thereafter under the auspices of the UNESCO Decade of Education for Sustainable Development. ●

UNISDR Regional News

UNISDR opens regional office for Asia-Pacific in Bangkok

With over 50 per cent of all disasters occurring in the world, the Asia and Pacific Islands region represents the largest and most disaster-prone area, with a regular and increased frequency of typhoons, tsunamis, floods, droughts, fires and other natural hazards. Despite the wealth of expertise, knowledge and know-how available in disaster risk reduction (DRR), increasing population growth, widespread poverty, environmental degradation, rising pollution and wild human settlements have kept increasing the vulnerabilities of most communities in the region. This creates a favorable terrain which invariably help turn the above hazards into devastating disasters that wipe out all human lives and economic lifelines on their way, and set back years of continued development efforts.

REQUESTED BY 168 UN MEMBER STATES

In December 2004, the tragic tsunami in the Indian Ocean heightened the level of awareness of the communities in Asia and the Pacific about the importance of integrating DRR into national development planning, and reminded them of the need to work together in a coordinated manner to respond to the threat of disasters. In that spirit, as a direct follow-up to the World Conference on Disaster Reduction (held in January 2005 in Kobe, Japan) and at the request of the 168 UN Member States grouped together on the occasion, the UNISDR Secretariat established a regional presence to cover the entire Asia and Pacific Islands region. The UNISDR Regional Unit for Asia and the Pacific was set up in June 2005 in Bangkok, Thailand, hosted by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP). UNISDR Asia & Pacific is currently divided into two separate bodies:

- *A regional unit*, based in Bangkok, Thailand, which covers the whole Asia and Pacific Islands region. It employs a Senior Regional Coordinator and a Regional Programme Officer, as well as two local support staff;
- *A sub-regional liaison office* for Central Asia, based in Dushanbe, Tajikistan, and covering Uzbekistan, Kyrgyzstan, Kazakhstan, Turkmenistan and Tajikistan, is coordinated by a Junior Professional Officer.

CORE MANDATE & AREAS OF FOCUS

The core mandate of the UNISDR Asia & Pacific includes:

- *Raising awareness* of DRR, including the promotion of World Disaster Reduction Campaigns and the annual UN Sasakawa Award for Disaster Reduction;
- *Advocating* through policy formulation;
- *Disseminating* guidelines to assist in the implementation of the Hyogo Framework for Action (HFA);
- *Promoting* the establishment of national platforms for disaster risk reduction;
- *Enhancing* networking and building partnerships to contribute to an effective culture of safety; and
- *Helping* to protect all communities in the Asia and Pacific Islands region.

Three specific areas of focus have been identified to guide the work of the UNISDR Asia and the Pacific. They include:

- *Promoting* the Hyogo Framework for Action (HFA) throughout the whole Asia and Pacific Islands region and forging partnerships at regional level to facilitate its implementation, with the effective operational support and expertise of members of the UNISDR Asian Partnership on Disaster Reduction (IAP) and other relevant players.
- *Following up and strengthening* projects carried out under the United Nations Flash Appeal for the Indian Ocean Tsunami Early Warning System (IOTWS), including increased cooperation and coordination with relevant technical partners and the donor community.
- *Developing* an effective information management system with comprehensive databases, maintaining a regional website, producing a biannual publication called "Disaster Reduction in Asia and the Pacific - UNISDR Informs", disseminating regional highlights promoting regional partners' initiatives and relevant events.

The UNISDR Regional Unit for Asia and the Pacific Islands will work through a growing network of national platforms to mobilize governmental actions in DRR. It will also work directly with governments in the region, as mandated though the HFA, to help them identify their priorities and formulate national action plans on disaster risk reduction towards its integration in national development plans. It will also make an effective use of regional partners' networks at national level, especially UN Country Team members, to facilitate the effective implementation of DRR strategies. ●

For more information, please visit www.unisdr.org/asiapacific

UNISDR Asia Partnership on Disaster Risk Reduction revitalized

Following the establishment of UNISDR Regional Unit for Asia & Pacific in June 2005 in Bangkok, Thailand, relevant regional partners in disaster management requested UNISDR Asia and Pacific to take the lead of the UNISDR Asia Partnership (IAP) on Disaster Reduction and to revitalize the entity as a recognized regional mechanism for joint programming, planning and implementation along the lines of the Hyogo Framework for Action (HFA) in the region, in close cooperation with governments and in-country partners.

BACKGROUND & ROLE

Established in 2003 at the initiative of the Asian Disaster Preparedness Centre (ADPC) as an informal group to promote disaster risk reduction matters in the Asia & Pacific region, the Partnership is currently composed of four UN programmes and two regional organizations: the UNDP Regional Centre in Bangkok (UNDP-RCB), the UN Economic and Social Commission for Asia and Pacific Region (UNESCAP), the UN Office for the Coordination of Humanitarian Affairs Regional Office for Asia and the Pacific (UNOCHA/ROAP), the Asian Disaster Preparedness Centre (ADPC), the Asian Disaster Reduction Centre (ADRC) and the UN International Strategy for Disaster Reduction Asia & Pacific (UNISDR Asia & Pacific). Future plans include the expansion of the group to other interested relevant regional organizations working in disaster risk management and related fields of activity.

As the Asia and Pacific Region is too diverse and too vast for one all-encompassing strategic regional programme, the numerous Disaster Risk Reduction (DRR) initiatives and mechanisms already existing at national and regional levels have to be fully utilized to optimize their action and effectiveness at regional, national and local levels. The role of the IAP is precisely to build on the existing regional expertise and mechanisms in DRR to promote joint actions, programming and implementation at regional level, to better assist individual countries in mainstreaming DRR as part of national development planning, identifying their national priorities and develop their national strategies.

PRIORITY ACTIONS

The priority actions for the IAP have been defined by its members as follows:

1 *Promoting* DRR throughout the region by organizing or providing support, where feasible, to strategic initiatives in target countries and sub-regions, in partnership with other stakeholders as required for each specific case.

2 *Creating* a forum for discussion, sharing experiences and exchanging information so that the resulting dialogue can strengthen the individual characteristics of partners and their work as a group.

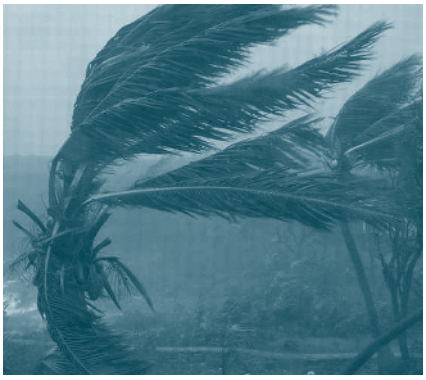
3 *Ensuring* that the recommendations in the Hyogo Framework for Action (HFA) adopted at the 2005 World Conference on Disaster Reduction are adapted to meet the priority requirements of each country in the region.

4 *Working* with key governments sectors and other in-country stakeholders to identify priority disaster reduction activities for national and community-level implementation.

ACTIVITIES

Various activities have already been carried out by the IAP since July 2005. These activities include celebrating the International Day for Disaster Reduction, organizing the UN Sasakawa Award for Disaster Reduction ceremony in Bangkok, approaching national governments either directly or through UN Country Teams or specific joint national fora, promoting the implementation of HFA at national and local levels, and developing whenever requested coordinated strategic national action plans for DRR at national level that shall encompass ongoing initiatives carried out at national level. ●

For more information, please visit www.unisdr.org/asiapacific



International Day for Disaster Reduction

The 2005 World Disaster Reduction Campaign on the theme of "Microfinance for Disaster Risk Reduction" culminated on 12 October 2005, the International Day for Disaster Reduction. Many activities and events were organized in the Asia and Pacific region on that occasion, including a High-Level Roundtable Discussion on the Potential of Micro Finance for Tsunami Recovery on 14-15 October 2005 in New Delhi, India, that was organized by the UNISDR in cooperation with the National Institute of Disaster Management (NIDM) and the All India Disaster Mitigation Institute (AIDMI). ●

For more information, please contact Daniel Kull at Daniel.kull@unisdrafrica.org or Praveen Pardeshi, UNISDR Geneva, at pardeshi@un.org

INTERNATIONAL DAY FOR DISASTER REDUCTION

Asian experts awarded with UN global award

In Bangkok, Thailand, the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) and the Asian Disaster Preparedness Centre (ADPC), in cooperation with the United Nations International Strategy for Disaster Reduction (UNISDR) and other international and national organizations in Thailand observed the International Day for Natural Disaster Reduction 2005 at the UN Conference Centre (UNCC), Bangkok, on 12 October 2005 with the organization of the Annual ESCAP/ADPC Forum.

The event was opened by Dr. Kim Hak-Su, Executive Secretary of UNESCAP, (who conveyed the message of the UN Secretary-General on the International Day for Natural Disaster Reduction), Dr Bhitchit Rattakul, the former Governor of Bangkok Metropolitan Administration and former Deputy Minister of Science and Technology of the Royal Thai Government, and the Vice Minister of the Interior of the Royal Government of Thailand, H.E. Mr Kosin Kesthong.

The highlight of the commemoration of the 2005 International Day in Asia and the Pacific region was the presentation ceremony of the UNISDR-administered UN Sasakawa Award for Disaster Reduction, an international award created by Mr Ryoichi Sasakawa in 1987 to contribute to international initiatives of a humanitarian nature. It was the first time that the presentation ceremony for the UN Sasakawa Award was held in the Asia-Pacific Region. The Executive Secretary of UNESCAP opened the ceremony in Bangkok, Thailand. H.E. Mr Kosin Kesthong, Vice Minister of the Interior of the Royal Government of Thailand presented the Sasakawa certificate and a prize of 40,000 USD to the 2005 UN Sasakawa Award Laureate, Mr Chimeddorj Batchulluun, Deputy Head of Professional Management Department and Head of Operative Management and Coordination Division, National Emergency Management Agency (NEMA), Mongolia. Two Certificates of Distinction were also presented - respectively by the Executive Secretary of UNESCAP and Dr Bhitchit Rattakul - to Dr Claude de Ville de Goyet, former Director of the Emergency Preparedness and Disaster Relief Coordination Programme in the Pan American Heath Organisation (PAHO) and to Mr Jaime Parejo Garcia, Chief of the Rescue Dog Unit at the Fire Brigade in Sevilla, Spain for their valuable work in disaster preparedness. A Certificate of Merit was presented by UNISDR Senior Regional Coordinator Mr Joseph Chung to Mr Darmili, representing the Simeulue Community of Indonesia for overcoming the 2004 tsunami with minimal human losses thanks to the community's preservation of traditional knowledge.

The Certificates of Distinction and Merit were presented together with a prize of 5,000 USD each. Dr Claude de Ville de Goyet generously decided to donate his financial reward of 5,000 USD to the Simeulue Community to contribute to its speedy recovery and rehabilitation process from the 2004 tsunami through the development of an integrated disaster management strategy including disaster reduction measures.

The award presentation ceremony was followed by a panel discussion on "Disaster Risk Management in Asia and the Pacific: Learning from Recent and Innovative Experiences".

The presentation of the UN Sasakawa Award to the Mongolian representative and of the Certificate of Merit to the Simeulue Community of Indonesia recognized the important achievements and efforts in disaster risk reduction in the Asia-Pacific region, one of the most disaster-prone regions in the world. The activities for the commemoration of the International Day for Disaster Reduction 2005 also featured an exhibition on "Disaster Reduction in the UNESCAP Region." ●

The 2005 UN Sasakawa Laureate, Chimeddorj Batchulluun, NEMA Mongolia (left), and the Vice Minister of the Interior of Thailand

For more information, please consult www.unisdr.org/eng/media-room/press-release/2005/PR-200525-sasakawa05.pdf

INTERNATIONAL DAY FOR DISASTER REDUCTION

Asian broadcasters involved in global effort to reduce disaster impact

12 October – Geneva/Kuala Lumpur/Hong Kong
CNN International, the United Nations and the Asia-Pacific Broadcasting Union have launched an effort to build greater public awareness and preparation for natural disasters by increasing media messages to mass audiences in recognition of the International day for Disaster Reduction today.

Cable News Network (CNN) is lending its expertise in reporting on crisis situations by supplying one of its top former journalists to serve as an executive producer and trainer to Asian broadcast journalists affected by the December 2004 tsunami. Through the effort, stories will be created on disaster reduction and post-tsunami recovery efforts which will be exchanged among Asia-Pacific broadcasters and for use by CNN World Report in commemorating the first anniversary of the 26 December tsunami of 2004.

The more recent Hurricane Katrina which caused unprecedented economic losses and human suffering in the United States in America is a reminder that we are all vulnerable to natural hazards. Anyone can be affected, any day, anywhere by disaster originated by a natural hazard. "Therefore we have to be constantly prepared and educated for all types of natural disasters" said Salvano Briceño, director of the International Strategy for Disaster Reduction Secretariat. Former CNN Bangkok Bureau Chief Tom Minister will today begin visiting television producers in Indonesia, Malaysia, Thailand, India, Sri Lanka and Bangladesh to review pieces produced since a gathering of the broadcasters was held in Bangkok to discuss coverage of disaster awareness and building public response through the media in June. "I know that each of these producers have been affected either directly or indirectly from last year's tsunami. They each live in the country affected and whether they have done stories about places or people they know it is something they will live with for the rest of their lives," Minister said.

"While this initiative is focusing mainly on raising public awareness of how to respond in disaster audiences as well as enhanced national and regional information flows in these crisis situations, the 2004 Indian Ocean Tsunami unveiled and brought to our attention that many broadcasters do not have early warning systems," said Craig Hobbs, Sr Officer, International Relations at the ABU. "These collaborative content creation and exchange activities which are facilitated by the UNISDR help to build communication between broadcasters, the meteorological organizations and public emergency services for better coordination in both public response and early warning system development."

For more information, please visit www.unisdr.org/eng/public_aware/world_camp/2005/2005-iddr.html

INTERNATIONAL DAY FOR DISASTER REDUCTION

Southeast Asia marks ASEAN disaster management day

The second Wednesday of October – the International Day for Disaster Reduction – has been selected by the ASEAN (Association of South East Asian Nations) Secretariat and Member Countries to mark the ASEAN Day on Disaster Management. On 12 October 2005, as in previous years, the ASEAN Secretariat coordinated action with member countries to facilitate the commemoration of the Day.

Meanwhile, as a follow-up to the 26 December 2004 Indian Ocean tsunami, several countries affected by the disaster, like Thailand and Malaysia, approved 26 December as their National Disaster Prevention Day (in Thailand) and National Disaster Awareness Day (in Malaysia), which might suggest that they would, in the future, mark the ASEAN Day on Disaster Management on 26 December.

In fact, at its last meeting in Jakarta, Indonesia, in December 2005, the ASEAN Committee on Disaster Management (ACDM) raised that possibility: that of shifting the ASEAN Day to 26 December. Further discussions will be held at the next ASEAN Ministerial Meeting to explore the possibility of changing the date of the ASEAN Day and moving it from the second Wednesday of October to 26 December. This would allow, in some countries, to mark two events on a single occasion. ●

For more information, please contact Adelina Kamal, ASEAN, at lina@aseansec.org

INTERNATIONAL DAY FOR DISASTER REDUCTION

National activities to mark the ASEAN Day on Disaster Management, 12 October 2005

BRUNEI DARUSSALAM

The Brunei Fire Services held an exhibition on ASEAN Committee for Disaster Management's activities. There was a drawing contest for children aged 5 to10 and an essay writing competition on the topic of disaster.

CAMBODIA

The National Committee for Disaster Management (NCDM) of Cambodia on 12 October 2005 organized a national forum in Kompong Thom Province under the chairmanship of H.E. Mr Nhim Vanda, first vice-president of NCDM, involving all media agencies, international organizations, NGOs as NCDM's stakeholders and officials from nearby provinces. Issues related to disaster reduction strategy were discussed in the light of the outcomes of the December 2004 First ASEAN Ministerial Meeting on Disaster Management held in Phnom Penh, Cambodia, and in the light of the January 2005 Hyogo Declaration. The forum was held back-to-back with a flood emergency relief meeting attended by more than 1,500 people. Banners and posters were displayed along the road and around the meeting location on the following theme: "Disaster Reduction Measures for a Safer Community as Part of the Poverty Alleviation Strategy of the Royal Government of Cambodia". The event was followed by a press conference.

INDONESIA

Indonesia organized an ASEAN-UN Roundtable on Humanitarian Assistance Rapid Response Capacity on 24 and 25 October 2005 in Bandung, Jakarta. The roundtable aimed to provide inputs to the enhancement of ASEAN Member Countries' capacity to provide humanitarian assistance rapid response through strengthened ties and cooperation with the UN. The provincial government of Jakarta Capital Region conducted a series of activities including: a workshop on local disaster risk mapping for all neighbourhood heads, an exhibition, a parade and a drill exercise on terrorist attack with an element of radiation hazards. The Indonesian Society for Disaster Management (MPBI) organized a series of activities including: the mobilization of defence assets in disaster management; a drill exercise and workshop for rescuers and emergency responders; a roundtable discussion on avian flu; and a workshop exploring the use of microfinance for disaster vulnerability reduction.

MALAYSIA

Malaysia organized a five-day exhibition at Petronas Twin Tower, Kuala Lumpur. Taking part in the exhibition, which was jointly organized with the Force of Nature Aid Foundation, were several organizations and NGOs. The Crisis and Disaster Management Directorate of the National Security Division (in the Prime Minister's Office) was represented by SMART (Special Malaysian Assistance and Rescue Team) with photo, movie and equipment display at a specific booth. The National Security Division produced articles for at least two local newspapers, and a 30-minute radio talk-show to reflect Malaysia's preparedness in the light of the recent experience of Hurricanes Katrina and Rita.

MYANMAR

Myanmar marked the Day in conjunction with the Red Cross during the first week of October 2005.
Philippines: The Office of Civil Defence supported the organization of various activities by sectoral departments and other agencies.

SINGAPORE

A series of public education exercises and drills were conducted throughout the country, including an evacuation drill from high-rise buildings and housing and commercial anti-terrorist drills to educate people on what to do in the event of such incidents.

THAILAND

Thailand's Department of Disaster Prevention and Mitigation organized public awareness campaigns. The Bangkok-based UNISDR regional office organized the award presentation ceremony for the UN Sasakawa Award for Disaster Reduction and a panel discussion on innovative achievements in DRR in Asia and the Pacific - as part of the Annual ESCAP/ADPC Forum.

VIET NAM

The Central Committee for Flood and Storm Control (CCFSC) organized its annual meeting with other government agencies, UN agencies and NGOs.

For more information on the ASEAN Day for Disaster Management, please contact Adelina Kamal, ASEAN, at lina@aseansec.org

INTERNATIONAL DAY FOR DISASTER REDUCTION

High-level officials discuss microfinance for disaster risk reduction

TAJIKISTAN: 2005 was the year of Microfinance within the United Nations, and the UNISDR dedicated the International Day for Disaster Reduction on 12 October 2005 to promote enhanced disaster resilience by including disaster risk reduction measures in microfinance projects. UNISDR Central Asia supported the theme by arranging a round table discussion on "Microfinance and Disaster Risk Reduction" for high-level officials, including First Deputy Minister for Emergency and Civil Defence Mr Radjabov, Aga Khan Development Network Resident Representative Mr Feeresta and the Head of the European Bank for Reconstruction and Development (EBRD), Mr Pillonel. The primary objective was to raise awareness amongst the social and financial communities and institutions of disaster risk reduction measures, as microfinance projects easily suffer from frequent disasters in Tajikistan.

In Tajikistan, natural hazards represent a major risk for the poor and marginalized, who are already the most vulnerable in society. The destruction of property and livelihoods furthers their downward cycle of poverty. In 2005, disasters have caused economic and social damage worth 99,472,400 somonies (31,280,000 USD) and Tajikistan sustained a heavy loss from natural disasters equivalent to 202,9 million USD over 2000-2005. During this period, 36,998 houses were damaged or completely destroyed and 111,292 persons were affected. Natural hazards threaten not only peoples' lives but also affect natural resources and income opportunities. This leads to economic and social decline and entails socio-economic regress. In addition, relief aid and rehabilitation activities that are so much required after natural calamities are very costly – whilst these funds could be directed towards poverty alleviation and socio-economic development instead.

Investing in disaster risk reduction contributes to reducing the vulnerability of people to hazards and helps break the vicious cycle of poverty. Microcredit has proven its value in many counties as a weapon against poverty and hunger. With access to microcredit, people with low incomes can earn more and better protect themselves against unexpected setbacks and losses.

For more information, please contact Tine Ramstad, UNISDR Tajikistan, at tine.ramstad@undp.org

INTERNATIONAL DAY FOR DISASTER REDUCTION

UNISDR Asia-Pacific web site launched

UNISDR Asia & Pacific on 8 March 2006 launched its web site (www.unisdr.org/asiapacific) which provides basic information on disaster risk reduction in the Asia and Pacific region and reflects disaster risk reduction activities and events developed by relevant regional partners throughout the Asian and Pacific region, including specific announcements.

The web site aims to establish an interactive relationship with regional partners who are invited to provide information on a regular basis. Strong emphasis is placed within UNISDR Asia and Pacific on managing and facilitating relevant, reliable and updated information destined to the disaster management community for the sake of effective management and prevention of natural disaster situations, the empowerment of local capacities through an effective information sharing, exchange of experiences and related educational process on disaster risk reduction, and the subsequent resilience of vulnerable communities to disasters in the Asia and Pacific region. ●

For more information on substantive aspects, please contact rosec@un.org. All technical aspects are managed from Geneva – contact barrantes@un.org.

INTERNATIONAL DAY FOR DISASTER REDUCTION

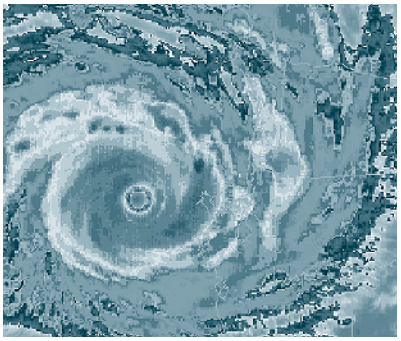
UNISDR world campaign for disaster reduction kicks off in Asia-Pacific region

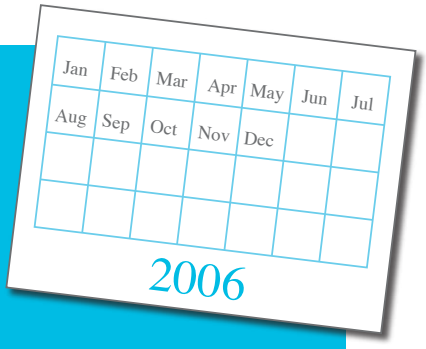
UNISDR Asia and Pacific has launched the 2006-2007 World Disaster Reduction Campaign entitled "Disaster Reduction Begins at School" throughout Asia. The first step of the process included a slogan competition for school children to support the overall theme of the campaign. The announcement of the competition was disseminated throughout school networks in Asia.

It is to be noted that case studies on successful integration of disaster risk reduction into school curricula and on disaster-resilient school infrastructures had been sought from the region to contribute to the campaign press kit. Relevant case studies were provided by SEEDS (Sustainable Environment and Ecological Development Society, India), SOPAC (South Pacific Applied Geoscience Commission, Fiji) and NSET (National Society for Earthquake Technology, Nepal). The slogan competition and case study guidelines were translated into Thai and were disseminated throughout a network of schools in Thailand, including through an ADRC (Asian Disaster Reduction Center, Japan) workshop on primary school education (1-3 March, Phuket, Thailand). ●

For more information, please contact rosec@un.org.

SEEDS : *Above top*, students practising search and rescue techniques, Saraswati High School, Ahmedabad. *Middle*, school children conducting a public awareness campaign in Shimla. *Bottom*, Duck, Cover and Hold: the basic step to be taken in an earthquake, being rehearsed at a Delhi school. Photos, SEEDS



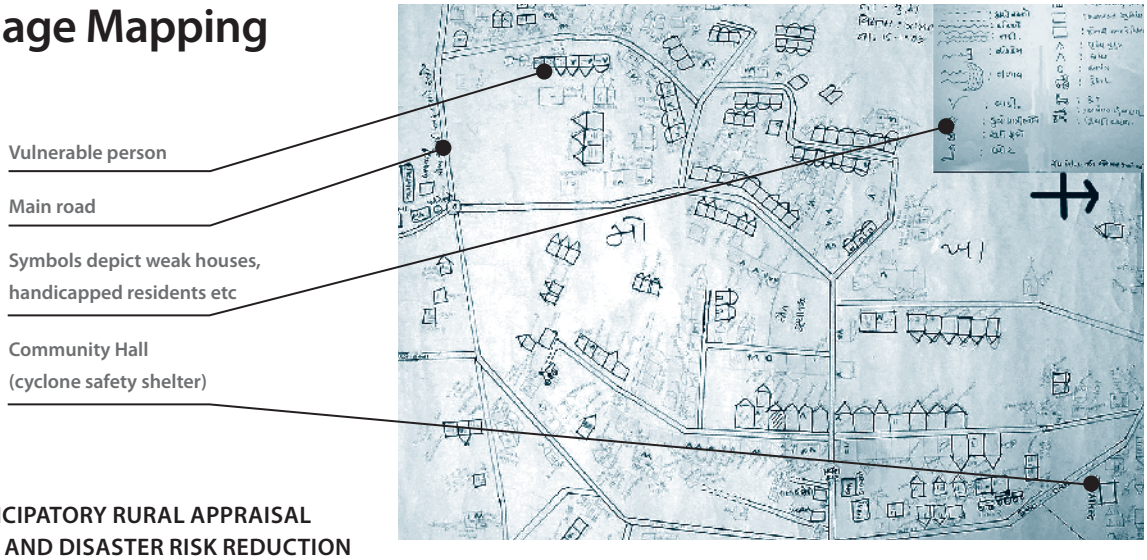


For the latest information on Disaster Reduction-related events throughout Asia, visit

www.unisdr.org/asiapacific

Events are constantly happening so please assist us in updating the calendar by sending information to isdr-bkk@un.org

Village Mapping



PARTICIPATORY RURAL APPRAISAL (PRA) AND DISASTER RISK REDUCTION

Village Mapping (PRA) is a popularly adopted assessment tool in Community-based Disaster Risk Management programmes. In multiple-hazard prone places like Kachchh district of Gujarat, in western India, the community creates maps to determine the vulnerability, resources and response mechanisms of the village in the event of natural hazards such as cyclones, earthquakes and floods.

The main objective of this exercise is information collection and dissemination with the active participation of a community. It gives an idea of overall risk and response capacity of the village and the society. While using this information for a village's development plan, it outlines priorities for developmental activities that would strengthen the ability of the community to prevent or minimize the impact of disasters.

The map is drawn up during a mass gathering, where everyone shares information of their own village and surroundings. The information focuses on types of houses and vulnerability of houses to damage or structural collapse. All variables are taken in to account while preparing a situational analysis report – availability of key resources that could be used during emergencies, physically or socially vulnerable individuals etc.

For more information please contact Akshat Chaturvedi of UNISDR Asia Pacific, at chaturvedi1@un.or

Building construction practices prevalent in Afghanistan are based on unengineered and non-reinforced mud, and often lack adequate strength. Photo, SEEDS.

OVERVIEW OF INITIATIVES IN ASIA-PACIFIC COUNTRIES

Partners In Action

Afghanistan

COMPREHENSIVE DISASTER MANAGEMENT PROGRAMME (CDMP) & DISASTER RISK REDUCTION (DRR)

In Afghanistan, the National Emergency Commission (NEC) coordinates and guides the strengthening of disaster management capacities and processes, using the Department for Disaster Preparedness (DDP) as its "executive arm". The primary functions associated with this task are outlined in the National Disaster Management Plan (NDMP). Under the NDMP, DDP has the mandate to coordinate and manage all aspects related to emergency response to disasters on behalf of the NEC, the post-disaster recovery and development phases being the responsibility of government line ministries. Even though DDP is responsible for the development and implementation of national disaster management policy, plans and capabilities at all levels, its current outreach capacity is not sufficient to effectively undertake this task.

The United Nations Assistance Mission to Afghanistan (UNAMA) is also involved in disaster risk reduction (DRR). It shows its commitment by continuously supporting the Afghan Government in enhancing its capacities and addressing disasters. In a joint effort of government institutions, UN agencies and the donor community, winterization needs have been successfully met, following a "Winterization Workplan" launched in October 2005. In December 2005, the Humanitarian Office of UNAMA facilitated the establishment of a National Emergency Operation Center which plays an important part in channeling information during ongoing and future emergencies.

Meanwhile, a multi-year Comprehensive Disaster Management Programme (CDMP) covering the whole spectrum of disaster risk reduction in Afghanistan is being developed by DDP assisted by UNDP. Included in the Programme is the assisted development of effective response systems at all levels, and a logical approach would be to pilot such development in a particular geographic area. Such a pilot project could be used not only to develop the response systems in that area but also to develop/enhance DDP's capacity to provide such assistance in other geographic areas as part of the larger programme. In addition, there is a need to ensure that coordination of national and international responses in a major disaster are effective in supporting provincial efforts.

The existing institutional disaster management mechanism is

essentially reactive and focused on emergency response as and when a disaster occurs. There is no interface between national authorities, disaster management practitioners and the scientific and technical community, and the country completely lacks professional staff trained in disaster management, hazard research and knowledge on the potential impact of climate change, climate variability and environmental degradation.

The CDMP aims to develop a specific advocacy strategy to raise general awareness within the political and policy-making sectors (including Government, NGOs and external agencies) on the potential consequences of hazard impacts on development programmes and on the importance of integrating risk management practices into development planning. Such a communication campaign will be part of a comprehensive national strategy addressing all sorts of natural hazards as well as vulnerability reduction throughout the country, including in major urban centres and a strong capacity-building component through local, regional and national training activities. The strategy will place specific emphasis on national ownership and the empowerment of local communities to enable them to take a lead role in risk reduction and response management activities. The strategy will be implemented in close collaboration and partnership with other agencies and projects for effective integrated action and optimal use of limited resources.

The primary focus of the Comprehensive Disaster Management Programme (CDMP) interventions is to facilitate the adoption of a more comprehensive risk management culture through:

1 *Professional development* of the disaster management system through key DDP national and zone staff, provincial authorities and appointed key line ministry risk reduction liaison staff;

2 *Mainstreaming* of disaster risk management into development and investment planning processes.

3 *Strengthening* community mitigation and institutional support systems;

4 *Expanding* mitigation and preparedness programmes to cover a wider range of hazards and geographical areas; and

5 *Operationalizing* response systems.

The direct beneficiaries of the Programme will be the following: communities and community-based organizations; key national, provincial and district officials (including NGOs) with disaster management programming and operational response coordination responsibilities; key government decision makers and politicians; national planning officers and all line government departments or agencies involved in development planning activities; and NGOs and the private sector. Disaster risk reduction is specifically mentioned in a recent agreement known as "Afghan Compact", an agreement between the donor community and the Afghanistan government. UNDP is confident that the CDMP will significantly enhance risk reduction in Afghanistan. *For more information, please contact Kai Yamaguchi, UNAMA Afghanistan, yamaguchik@un.org, or Philip Thomas Stenchion, UNDP Afghanistan, philip.stenchion@undp.org.*

Bangladesh

COMPREHENSIVE DISASTER MANAGEMENT PROGRAMME (CDMP) & COMMUNITY RISK ASSESSMENT (CRA)

Bangladesh has played a key role in a significant achievement by South Asian Association for Regional Cooperation (SAARC) member countries. During a recent SAARC Special Meeting on Disaster Management, the seven member countries decided to adopt a regional framework to guide disaster management and risk reduction programmes within and across the seven member countries. Even though there is a long way to go in getting into detail, the decision does provide the foundations for building strong regional and national frameworks in the countries. The regional framework is modeled around the very successful Bangladesh Comprehensive Disaster Management Programme (CDMP). CDMP was designed to provide a framework for a multi-donor contribution to disaster risk management in Bangladesh and also to facilitate a more strategic approach based on getting the institutional and policy frameworks set up first. Independent reviews by Department for International Development, UK (DFID) suggest that this approach represents a major progress in a field which tended to be dominated by discrete inputs with limited impact on government capacity to significantly reduce disaster risk.

Bangladesh also made major progress in its efforts to establish uniform Community Risk Assessment (CRA) processes through the endorsement of national guidelines. The guidelines are modeled around the international risk management standard AS-NZS: 4360:1999 and includes "front end" considerations for the integration of climate change impacts and other scientific modeling outcomes to ensure that current and future risk environments for communities can be accurately determined. The guidelines have been developed over the past six months through a highly consultative process involving Government and NGO partners. Field testing commenced in mid-March and full implementation is expected to begin in July 2006 following an intensive training programme for partner organizations.

The guidelines are an important step in Bangladesh's overall mainstreaming strategies as the output of CRA processes (i.e. risk reduction strategies) will be consolidated within risk reduction action plans of the various Disaster Management Committees (DMC). A training programme to expand the risk reduction knowledge and understanding of DMC members is currently being piloted, as are risk reduction planning templates. *For more information, please contact Ian Rector, ian.rector@cdmp.org.bd*

Iran

STRENGTHENING CAPACITIES FOR DISASTER RISK MANAGEMENT

UNDP Iran has initiated a five-year programme for "Strengthening Capacities for Disaster Risk Management in the Islamic Republic of Iran 2005-2009". The Programme focuses on three major areas: improving access to information on disaster risk and disaster risk management, formulating an urban earthquake risk management programme, and facilitating knowledge networking for disaster risk management at sub-regional level. Discussions are under way with various agencies for concretizing an action plan.

A consultation workshop was organized with the five-year programme partners in March 2006 to come up with the annual work plan and explore the scope and institutional arrangements for the establishment of a national information portal for disaster risk management (DRM). The National Society for Earthquake Technology (NSET, Nepal) is a technical partner for the five-year programme in Iran. Representatives from NSET shared the experience of DRM programmes in their country and explored possibilities of collaboration with Iran. Bureau for Crisis Prevention and Recovery, UNDP (BCPR) South and South West Asia provided advisory support to explore additional resources that can be mobilized and technical support that can be provided by BCPR and other UN and non-UN resources for different components of the Programme. *For more information, please contact shefali.juneja@undp.org*

Philippines

A FOUR-POINT NATIONAL ACTION PLAN FOR DISASTER PREPAREDNESS

In cooperation with UNDP and with funding from OCHA, the Government of the Philippines has developed a project on "Strengthening the Disaster Prepareness Capacities of the Municipalities of Real, Infanta and Nakar". The Project started in March 2005 to prepare the communities to natural disasters. One specific component of the Project relates to hazard mapping and the establishment of community-based disaster management systems, and aims to help local governments make informed decisions in adapting disaster risk management measures to the communities (through hazard mapping, community-based warning systems and distribution of Information-Education-Communication, (IEC), material to the communities). *For more information on this initiative, please contact* ADD

At institutional level, the Government of the Philippines has developed a "Four-Point National Action Plan for Disaster Preparedness" focusing on:

1 *Upgrading existing PAGASA & PHIVOLCS* forecasting capabilities for natural hazards such as typhoons, earthquakes, volcanic eruptions and tsunamis through


Iran

improved equipment and staff development, utilizing government resources and, if possible, foreign grants. The strategy involved will include the establishment or strengthening of linkages and networking with foreign forecasting institutions covering the Pacific Rim and South China Sea (e.g. Hawaii, Japan, China) to be able to source different forecasts from different places tracking the same natural hazard. Tracking and forecasting will be at the centre of the strategy, not just as a domestic concern but also a regional one. Special efforts will be placed in risk assessment and hazard mapping particularly in relation to geo-hazard-prone areas (e.g. geo-hazard maps) and the identification of potential risks for reference in land use plans and disaster management plans. A closer link will be established with the media community to set up a rapid media link system for real-time dissemination of information from monitoring agencies to the media, particularly during ongoing disaster management operations.

2 *Developing* an annual public information campaign on disaster preparedness that includes a "Strategic Communication Plan" in schools, workplaces, religious areas, malls and community organizations with a special focus on preparedness messages ("Detect, React & Evacuate", "Be Prepared", "Don't Panic", etc.) against natural hazards such as: (a) typhoons that cause flooding and landslides; (b) earthquakes that destroy buildings, homes and structures; (c) volcanic eruptions that cause pyroclastic flows, ash fall, lahar and lava flows; and (d) tsunamis that cause widespread destruction of coastal areas. Message delivery mechanisms will include primers, comics, posters, pamphlets, TV & radio ads, print ads, messages in movie houses and inclusion of disaster preparedness in school curricula. Target venues will include schools, workplaces, government offices and buildings, churches, malls and community organizations.

3 *Strengthening* capacity building for Local Government Units (LGUs) in identified vulnerable areas. This initiative includes the development of a disaster-aware culture of preparedness among identified vulnerable communities by providing technical assistance in education and information programmes with emphasis on mitigation and preparedness of the above natural hazards through seminars and workshops for LGUs to conclude with a dry-run of established operation procedures.

4 *Promoting* mechanisms for public-private partnerships in relief and rehabilitation, including the updating and standardization of the Manual of Operations for Search & Rescue and Relief & Rehabilitation (e.g. constructing 40,000 houses) to emphasize, among others: (a) synergy of government, private sector and community participation; (b) logistics management; (c) effective communication; (d) information management; and (e) effective interface of local and national-level efforts.

For more information, please visit http://ocd.ndcc.gov.ph

India

SPACE TECHNOLOGY, COMMUNITY RISK MANAGEMENT, HUMAN RESOURCE PLAN, DATA CAPTURE & ANALYSIS

A number of initiatives have been developed at national level in the field of disaster prevention and preparedness. Natural hazard zonation maps have been prepared for the entire country and micro-zonation maps for specific disasters are being prepared for specific areas with advanced techniques based on remote sensing and geo-information technologies. Space technology application is highly developed in India and includes:

1 *Spatial data* on geology, topography, hydrology, land use, land cover, and socioeconomic data on settlement, demography and occupational patterns are being integrated on GIS platform. Various modeling studies are also being carried out on flood, cyclone, etc. for local level risk assessment and mitigation strategies. Based on these assessments, various mitigation projects are being developed for long-term prevention of disasters.

2 A comprehensive *early warning system* for various disasters is being developed. A network of advanced Doppler radar systems have been installed along the west and east coasts for tracking cyclones. 166 flood forecasting centres are stationed all along the major river basins to monitor the water level of rivers and reservoirs. Work is in progress on an advanced multi-purpose tsunami early warning system. A medium-range weather forecasting system is in place for monitoring drought situations on a weekly basis and for providing advisories to farmers in the concerned regions.

3 State-of-the-art application of *information and communication technology* for disaster management: A National Emergency Operation Centre (EOC) has been set up in the Ministry of Home Affairs with a satellite-based voice/data communication network with triple redundancy for fail-proof communication. Similar EOCs are being set up in State capitals and district headquarters. Arrangements are also in place for emergency airlifting of mobile EOCs at disaster sites. An online India Disaster Resource Network (IDRN) links 565 districts for locating equipments and other material resources in public or private ownership for responding to emergency situations. Another online India Disaster Knowledge Network (IDKN) portal is being developed to provide a platform for practitioners and technical institutes to share tools, formats, guidelines and other resource material pertaining to various phases of the disaster management cycle.

COMMUNITY-BASED DISASTER RISK MANAGEMENT PROGRAMME WITH UNDP

A Community-Based Disaster Risk Management Programme (CBDRM) has been launched with UNDP assistance for

implementation in 169 multi-hazard prone districts in 17 States and Union Territories. Under the Programme, villagers are trained to assess their own risks in a participatory framework and develop Village-Level Disaster Management Plans (VDMPs) which include inter alia resource maps, risk and vulnerability maps, shelter and evacuation maps and the identification of hazard-specific mitigation activities. The villagers conduct mock drill for validating their plans and to remain in a state of preparedness. The VDMPs are integrated horizontally with block and district plans and vertically with the sectoral plans of concerned line departments. This process is mobilizing millions of villagers in the project states. It is also creating new levels of disaster risk awareness among them. *For more information, please contact UNDP-BCPR Delhi through Shefali Juneja at shefali.juneja@undp.org*

NATIONAL INSTITUTE OF DISASTER MANAGEMENT ESTABLISHED

A National Institute of Disaster Management (NIDM) has been set up to formulate and implement a comprehensive human resource development plan on disaster management, develop training modules and undertake research and documentation work on disaster management, mainstream disaster management in education at every level, and provide assistance in national-level policy formulation on disaster management. A National Human Resource Plan on Disaster Management has been developed and training modules have been prepared for various sectors. Networking with research and training institutions have been established for sharing of knowledge and resources and for taking up down-end training programmes to the States and the districts. Disaster management has been included in the curriculum of middle and high schools, engineering and architectural courses, and a similar curriculum is being developed for medicine and nursing courses.

For more information, please contact P. G. Dhar Chakrabarti, Executive Director, National Institute of Disaster Management, Ministry of Home Affairs at dharc@nic.in or visit www.nidm.net

A UNDP-led initiative has been developed in India to institutionalize disaster inventories through "DesInventar", a tool developed by Network for Social Studies on Disaster Prevention in Latin America (LARED) for the capture and analysis of disaggregated data on disaster occurrence and losses. In 2003, UNDP India piloted this initiative in the State of Orissa, following which it is now being implemented in six other states. Also a Tsunami Regional Programme by Bureau for Crisis Prevention and Recovery, UNDP (BCPR) aims to build capacities of affected countries in post-disaster recovery and disaster risk reduction. The implementation of DesInventar in the State of Tamil Nadu is being supported under this Tsunami Regional Programme. In March this year, the BCPR RP Team supported the finalization of the data collection methodology and contextualization of the software for application in the State of Tamil Nadu. A government institute was also identified and approved by the State government to house the system, thus initiating the institutionalization

Case study

HOW PARTICIPATION CAN CREATE POSITIVE CHANGE: A VIETNAMESE VILLAGE MOBILIZES COMMUNITY SUPPORT

Located on the banks of the Red River in northern Viet Nam, Nga Quan is a typical rural mountainous village with a population of nearly 2,000. The local economy, based on agriculture, livestock and aqua cultivation, provides villagers with an average per capita income of only 200 US dollars a year. According to government criteria, Nga Quan is still considered a poor community highly susceptible to major hazards such as flooding, flash floods and landslides. In its recent history, the village has suffered from six major floods that caused dykes to be breached twice resulting in serious property and crop damage.

Since January 2005, the Community-Based Disaster Risk Management (CBDRM) project has been implemented in Nga Quan village by Save the Children and its Vietnamese partners, the Central Committee for Flood and Storm Control (CCFSC), the Committee for Family Population and Children and the Vietnam Red Cross, with funding from Disaster Preparedness, European Community Humanitarian Office (DIPECHO). According to Mr Cao Ngoc Hung, the chairman of the local people's committee, the project has helped the community to systematically conduct a Hazard, Vulnerability and Capacity Assessment (HVCA) and to improve the annual disaster planning process. In particular, he shares with pride that this was "the first time the whole community, including old people, farmers, veterans, women, youth and children, were mobilized to participate in a disaster management project, from training to action planning to final implementation of all project interventions."

Through HVCA, Nga Quan village was able to identify a number of activities and small-scale projects that needed to be implemented in coming years, including strengthening of the local dyke, expanding irrigation channels, upgrading the community's gridline, and constructing an evacuation centre for the community. Local residents also proposed to plant trees as part of a reforestation scheme, construct safe playgrounds for children, and train and enhance capacity for emergency response and rescue teams.

Out of these priorities, the project has already approved 3,000 euros for the community to strengthen the dyke, and - incredibly - more than 500 people from the small village participated in repair work. Local people mobilized their own resources and manpower to dig a solid embankment which resulted in an upgraded dyke measuring 800 m, which is a major improvement compared with the initial plan of 200 m. The dyke now has a strong foundation and large surface that serves as an inter-village road, allowing access by large trucks where previously only motorbikes could pass. Project funding along with community matching also helped to repair a small irrigation dam damaged by a recent typhoon. The former soil irrigation dam was repaired with concrete and stone materials, which will remain solid for many years.

Thanks to great efforts by all stakeholders concerned, including the local community, central and provincial partners, DIPECHO and Save the Children, the project successfully achieved its objectives and produced quality results in a limited time and with limited funding. Nga Quan village was able to mobilize all available resources such as material and labour contributions, commune budget, technical support from district and provincial disaster management agencies and even from the private sector. During the completion ceremony, the director of the local company which repaired the dyke and the dam said: "We are here to help the community strengthen the dyke, road and dam. You come from afar to help the people, but we are a local agency, so why should we not reach out to help our own community?" The contractor then offered a not-for-profit contract to help the commune upgrade another 300 m of inter-village road. They only charged machinery costs and some stipend for the workers. The local people were indeed proud of the positive changes to their community, and the project also has received great attention from local, district and provincial authorities.

When communities are empowered and supported, they can achieve extraordinary results. Mr Cao Ngoc Hung, the chairman of the local people's committee, said: "With the support of the [Save the Children and DIPECHO] project, Nga Quan [village] was able to accomplish even more."

For more information, please contact Save the Children in Viet Nam, chinhnc@savechildren.org.vn

process. A DesInventar implementation plan for the State has also been finalized in consultation with the UN Recovery Team and government counterparts. Subsequent to individual meetings with government counterparts, a consultative meeting with government counterpart agencies was held where each agency identified a nodal person to provide relevant data and information for the development of the disaster database. This initiative will help relevant authorities develop appropriate disaster management polices and programmes for the future. *For more information, please contact shefali.juneja@undp.org*

Cambodia

COMMUNITY SELF-RELIANCE & FLOOD RISK REDUCTION

A technical assistance initiative was developed by the Ministry of Water Resources and Meteorology for "Community Self-Reliance and Flood Risk Reduction" with the Asian Development Bank (ADB) funding in April 2005. The initiative is financed from the Poverty Reduction Cooperation Fund and the Government of Cambodia. Its purpose is to reduce rural communities' vulnerability to floods and droughts by involving target vulnerable communities, in the lower Mekong River Basin in Cambodia, in the flood risk management decision-making process.

Viet Nam

RECENT ACHIEVEMENTS IN DISASTER MITIGATION, FLOOD AND STORM CONTROL

In 2005, the human losses and economic damage caused by various disasters in Viet Nam were reduced significantly thanks to a National Disaster Reduction Strategy developed by the Government, including the related close coordination of various ministries and sectors from central to local levels and the active participation of local people. A nationwide awareness-raising strategy was developed, including grassroots training courses on disasters and prevention and mitigation measures.

The courses, which were organized by the Fisheries Department, Transportation Department, National Committee for Search and Rescue, Central Committee for Flood and Storm Control, Viet Nam Red Cross in collaboration with local authorities, provided the necessary knowledge and skills to respond to storm and typhoon at sea in the context of unpredicted and unusual disaster developments. The training courses focused on the following themes:

1 *Basic knowledge* of typical disasters in Viet Nam like flood, storm, flash flood, and prevention measures.

2 *Safety equipment* required before going for fishing at sea.

3 *Storm forecast procedures* through Voice of Viet Nam (radio), Viet Nam Television and by firing.

4 *Locations of storm safety shelters* for boats and ships.

5 *Flash flood warning stations*.

The National Disaster Reduction Strategy also includes the strengthening of disaster early warning and forecasting capacities through better equipment for more accurate, reliable and timely forecasting data, as well as the strengthening of Viet Nam's institutional framework through the restructuring of national legislation and development of new strategies and plans to improve the distribution of responsibilities and coordination of actions between the Central Committee for Flood and Storm Control (CCFSC), Disaster Control Committees (DCCs) and the National Committee for Search and Rescue.

Cambodia: For more information , please visit ADB Cambodia's website at www.adb.org/documents/adbbo/csrn/aota/37290012.asp

Viet Nam: For more information , please visit www.ccfsc.org.vn/dmu_en

Thailand

COMMUNITY-BASED DISASTER RISK MANAGEMENT IN TSUNAMI-AFFECTED VILLAGE

Thailand is one of the most disaster-prone countries in Asia, suffering from a series of disasters ranging from flooding, drought situations as the most frequent, to exceptional tsunamis. Despite the recurrent character of these natural hazards, Thailand's past disaster management system has essentially focused on response and relief activities rather than prevention and preparedness. However in 2003, Thailand's disaster management authority, the Department of Disaster Prevention and Mitigation (DDPM) introduced the "Community-Based Disaster Risk Management" (CBDRM) concept as a solution to disaster vulnerable communities across the country and chose the village of Tablamu, which suffered greatly from the

A map of Tablamu village showing tsunami-safe areas in three different locations being examined by local community members.

December 2004 tsunami disaster, as a pilot model for disaster-resilient community.

With technical support from GTZ of the German government, DDPM launched a one-and-a-half year project on "Advisory Technical Assistance on Disaster Risk Management" through which two pilot communities have been selected: the flood vulnerable Tung Kraborg village in Trat Province and the tsunami prone Tablamu village in the southern province of Phang-Nga. The objectives of the project were to strengthen the communities' resilience capacity to flood and tsunami disasters through an educational process on disaster, participatory risk assessment exercises, the creation of a permanent disaster risk management organization called "Village Disaster Prevention and Mitigation Committee", the formulation of a disaster reduction plan and disaster reduction programmes, the implementation of the plan with the community's involvement and the evaluation of the project, including evacuation exercise activity. Tablamu Village is a fishing community in Phang-Nga Province which was hit hard by the 26 December Indian Ocean Tsunami. A dozen of Tablamu residents were killed with many others seriously injured. Prior to this calamity, the community had no knowledge of this natural hazard from the sea and did not know how to cope.

A CBDRM team from the DDPM Head Office, GTZ experts as well as government officials from Phang-Nga Province made a number of field visits to village leaders, provincial and local government officials and the Tablamu youth group and women group to introduce the concept of CBDRM and exchange information and knowledge about flooding and tsunami. A set of participatory disaster risk assessment activities were conducted, including the assessment of past disasters that took place in the communities by using CBDRM tools such as seasonal calendar and problem trees and the development of hazard mapping identifying disaster threats to the communities. The communities were encouraged to establish a village disaster risk management organization to take the responsibility of disaster management activities in the village in coordination with their neighbours and government and non-governmental agencies. The organization was divided into a main committee responsible for the overall disaster management activities such as the development of policy, guidelines and measures related to disaster management, and a sub-committee to carry out more specific activities linked to disaster prevention and preparedness, early warning, monitoring and communication, search and rescue, recovery and rehabilitation.

In the pilot community, a disaster prevention and mitigation plan was developed with the involvement of all community members, including Burmese migrants working in the community's fishery sectors. The plan provides details of what should be accomplished before, during and after a disaster. The community was also encouraged to amend the plan on yearly basis so that information related to responsible bodies, the nature of disasters, etc., could be updated.

In the second week of May 2006, a village disaster prevention and mitigation plan will be tested in Tablamu to assess the level of preparedness of the community to another tsunami. The plan includes a real-life situation of tsunami early warning, tsunami evacuation, first aid treatment, relief operations and exercise evaluation. A set of lessons learned and good practices have already been identified so far, which include:

1 *Community organization and mechanisms* in other sectors than disaster management and in other villages should be taken in consideration to learn from successful experiences and should be integrated for optimized efficiency.

2 *The involvement of local governments* facilitates the long-term sustainability of the project.

3 *Visual hazard mapping* exercises such as graphics, GIS, PowerPoint is important to raise the community's attention which can be hard to obtain at times.

4 *Participation and effective communication* between all stakeholders is crucial. The provincial governor, district chief, mayor, community leaders, minority groups and migrants are all key actors that cannot be left out from the decision-making process.

5 The sustainability of CBDRM projects lies on continuous *support from the national disaster management agency* as well as an effective involvement of local governments.

DDPM now plans to expand the practice of CBDRM to other communities at risk by using the experience and lessons learned from Tablamu. ●

For more information, please contact Suporn Ratananakin, Department of Disaster Prevention and Mitigation, rsuporn@yahoo.com

Regional initiatives in disaster management

Technical assistance from UN-OCHA regional office

The OCHA Regional Office for Asia and the Pacific (ROAP) was established in Bangkok in early 2005 and has been working since then at reinforcing natural disaster response and preparedness activities in the region, as well as supporting humanitarian action already being undertaken by UN Country Teams, UN agency regional offices. OCHA ROAP also manages sub-offices in Fiji, Japan and Papua New Guinea (PNG). The ROAP Team in Bangkok consists of six units: Natural Disaster Preparedness and Response; Complex Emergency Preparedness and Response; Avian and Human Influenza Coordination; Information Management; Public Information and Advocacy; Civil-Military Cooperation. ROAP sub-offices in Fiji, Japan and PNG are engaged in supporting UN Country Teams and respective governments in natural disaster preparedness and response.

Over the past year, OCHA ROAP Team has been working with UN Country Teams, Governments, civil society and regional organizations for providing technical assistance, contributing to the establishment of multi-hazard early warning systems in partnership with UNISDR, supporting the development of contingency and disaster preparedness plans, encouraging data preparedness and emergency communication pre-planning, and advocating for public service campaigns and community awareness initiatives. With the surge capacity of the OCHA ROAP team, deployments in support of response to earthquakes in Nias, Indonesia, (March 2005) and Pakistan (October 2005) and the landslide in Leyte, Philippines (February 2006), were made possible. The deployment of ROAP staff to Nias facilitated seamless coordination of relief efforts after the departure of a UN Disaster Assessment and Coordination (UNDAC) team. Five ROAP members deployed to Pakistan supported the UN hubs set up at Mansehra and Islamabad in coordinating rescue and relief, information management and public information and media relations. In addition to assisting the coordination of practical emergency response by local, national and international responders during the Leyte landslide in the Philippines, the UNDAC team led by ROAP Regional Disaster Response Advisors also put together arrangements for linking emergency response and recovery/rehabilitation. In 2005, ROAP also led the UNDAC Exercise for national capacity assessment in the Philippines along with a mid-year review followed by a second round of review in 2006. Support for strengthening contingency planning processes is being continually provided by ROAP.

The ROAP houses (in partnership with the UNDP Regional Centre in Bangkok) the Regional Coordination Team of the UN System Influenza Coordinator's (UNSIC's) Office for Avian and Human Influenza preparedness in the Asia and Pacific region. ROAP's coordination support for the purpose has been geared towards building a regional platform for inter-agency surge capacity and backstopping to country level planning and linking with other institutions involved in pandemic preparedness and planning - such as APEC (Asia-Pacific Economic Cooperation) and ASEAN (Association of South East Asian Nations) - in partnership with the UNSIC Avian and Human Influenza (AHI) Regional Coordination Officer for Asia Pacific. In 2005, along with WHO, FAO, UNDP, the ROAP participated in the inter-agency joint AHI preparedness missions to Viet Nam, Cambodia and Laos.

As a member of the UNISDR Asia Partnership (IAP), ROAP has been supporting the disaster risk reduction initiatives by contributing to the development and design of a strategy for national-level implementation of the Hyogo Framework for Action 2005-2015 (HFA). ●

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DIPECHO action plans for South East Asia

The devastation caused throughout 2005 by natural disasters of extraordinary magnitude and destruction, including the Indian Ocean tsunami and the South Asian earthquake, has shown the importance of preparedness and prevention as fundamental elements of disaster management policies and strategies. The fourth Disaster Preparedness, European Community Humanitarian Office (DIPECHO) Action Plan for South East Asia, which promotes disaster preparedness-related projects, was approved at the end of 2004. Its implementation phase, carried out in Cambodia, Indonesia, Laos, Timor Leste and Viet Nam all along 2005, will come to an end by mid-2006. An extensive consultation process led by ECHO took place in November and December 2005 in the five Asian countries through national consultative meetings with relevant stakeholders (NGO partners, international organizations, national authorities, European Commission delegations, scientists, donor community, civil society), to assess needs and determine strategic priorities for the next phase. These consultations culminated in the South East Asia Regional Consultative Meeting in Bangkok on 2 December 2005 and ECHO's de-

cision to expand its Disaster Preparedness Strategy in the region through the continuation of regional programming and ongoing strategies in existing countries of operation and to re-establish the conditions for a possible re-launch of the DIPECHO strategy in the Philippines. The Fifth DIPECHO Action Plan was launched in April 2006 with a set of specific guidelines, and key partners were invited to submit project proposals supporting multi-faceted programmes, projects and activities in relation to the promotion of community-based disaster preparedness initiatives and small-scale mitigation works, with some advocacy components. The countries considered eligible for support under the Fifth Action Plan are Cambodia, Indonesia, Laos, Timor Leste, Viet Nam and the Philippines, (Thailand is only considered eligible under proposals for a South East Asia regional programme). ●

The guidelines for the Fifth Action Plan and the reports of the six consultative meetings are available on ECHO's web site, http://europa.eu.int/comm/echo/index_en.html

For more information on the overall exercise, please contact Béatrice MIÈGE in ECHO Brussels, beatrice.miege@cec.eu.int or Marc Gordon in ECHO Bangkok / DIPECHO South East Asia, ta02@echo-bangkok.org

Disaster-conflict interface project by UNDP Bureau for Crisis Prevention & Recovery

In 2005, the Disaster Reduction Unit of Bureau for Crisis Prevention and Recovery, UNDP (BCPR) conducted a desk study that reviewed the interrelationship between natural disasters and conflicts, and analyzed their mutual impacts on DRR programming across contexts. The study was undertaken with the recognition that there was an increasing incidence of natural disasters occurring in conflict and post-conflict settings which were posing new challenges for the overall effectiveness of UNDP's disaster reduction and recovery programmes. UNDP's past experiences with the Goma, DR Congo, volcanic risk reduction programme, the integrated Crisis Prevention and Recovery (CPR) programme for Colombia and disaster reduction programmes in Nepal, Sri Lanka and Haiti provided some initial evidence of the linkages, challenges and sometimes emerging opportunities for improved effectiveness of CPR engagement in these environments.

More recent information from the tsunami disaster in Sri Lanka and Aceh, Indonesia highlighted the need to investigate the conflict-disaster interface further to capture and apply past experiences towards strengthening UNDP's programming approaches. Under a global initiative for mainstreaming disaster risk reduction into the scope of a proposed "disaster-conflict interface project" will be to develop an integrated conceptual and programmatic framework towards reducing disaster and conflict risks through sensitive programming. This initiative will build on the background paper finalized

by BCPR and will be undertaken in close collaboration with relevant UNDP country offices. The project hopes to formalize UNDP/BCPR's efforts to streamline the attention of all stakeholders (particularly local and central government authorities and UNDP country offices) towards frameworks that will progressively aim to integrate efforts at disaster risk reduction with conflict prevention, mine action, transitional recovery and small arms demobilization initiatives. Based on a peer review and group consultations, six programme countries have been identified for the field research component of this project; namely Sri Lanka, Nepal, Guyana, Goma/DR Congo, Haiti and Indonesia. The first phase of the initiative is due to begin in these countries in May-June 2006. ●

For more information, please contact UNDP-BCPR Delhi through Shefali Juneja at shefali.juneja@undp.org

Tropical cyclone mitigation in Bay of Bengal, Arabian Sea

The Honourable Prime Minister of Bangladesh presided the Thirty-Third Session of the Panel on Tropical Cyclones for the Bay of Bengal and the Arabian Sea from 30 January to 4 February 2006 in, Dhaka, Bangladesh. Highlighted was the importance of the work of the Panel in common efforts to mitigate the impacts of tropical cyclones in the Bay of Bengal and the Arabian Sea. This recognition was based on the fact that effective and timely early warnings of tropical cyclones and storm surges generated by cyclones had contributed to the impressive reduction in the total number of deaths from over 300,000 people in 1970 to 140,000 people in 1991 and some 3,000 people in 1998 – all cyclones of the same magnitude.

The Thirty-third Session adopted the following important measures to further reduce the number of people killed by cyclone-related disasters and minimize their socioeconomic impacts in the sub-region:

1 Panel members of international river basins in the region were encouraged to pursue their fruitful exchange of hydrological data, especially for flood forecasting aiming to increase the lead-time in flood warning as a joint effort to mitigate flood impact.

2 The Panel urged its members to further improve flood forecasting services for better protection of human lives, and to use international forums as opportunities to highlight and mobilize key players to this humanitarian cause.

3 A regional project on institutionalizing an existing storm surge training module will be initiated within the framework of cooperation of the Panel, under the chairmanship of Prof S.K. Dube of the Indian Institute of Technology (IIT), Kharagpur.

4 A working group aimed at facilitating experience sharing on disaster management among the Panel members will be set up under the leadership of Bangladesh.

5 WMO was requested to facilitate the urgent implementation of the Global Telecommunication System (GTS) upgrade in Bangladesh, the Maldives, Sri Lanka and Thailand so as to address requirements for tsunami-related information exchange in the Indian Ocean Rim. ●

For more information, please contact Dr Le Huu Ti, UNESCAP, at ti.unescap@un.org

Institutionalizing Community-Based Disaster Risk Management in South East Asia

Asian Disaster Preparedness Center (ADPC) and UN Economic and Social Commission for Asia and the Pacific (UNESCAP) have implemented jointly the Third Phase of the Partnerships for Disaster Reduction in South East Asia Project (PDRSEA 3) since February 2005, under DIPECHO funding. The thrust of the project is to assist participating countries in institutionalizing Community-Based Disaster Risk Management (CBDRM). This effort is intended to mobilize governmental support from national disaster management offices, key line ministries, concerned departments and from local authorities to facilitate community action on disaster risk management. In this manner, PDRSEA aims to establish an improved and enabling environment for CBDRM in the Southeast Asian region. National Disaster Management Offices (NDMOs), NGOs, Red Cross and Red Crescent Societies and other CBDRM practitioners are playing a crucial role in facilitating the process of institutionalizing CBDRM into government policy, planning and implementation.

PDRSEA 3 is carrying out activities in the following five key support areas:

1 *Development* of frameworks for regional cooperation in CBDRM;

2 *Facilitation* of national strategic planning for CBDRM;

3 *Research* to identify existing governmental capacities to support CBDRM;

4 *Development* of tools and techniques to support decision making, e.g. database; and

5 *Strengthening* and sustaining partnerships and networking.

To facilitate the integration of CBDRM into the development process, a number of measures have been taken in the past 13 months under PDRSEA 3: strategic plans for CBDRM were formulated in Cambodia, Laos, Timor Leste and Viet Nam; a training manual for local government officials was prepared; orientation workshops for the media were held in all five project countries; national and regional standards to assess and evaluate CBDRM projects were developed, as well as advocacy guidelines

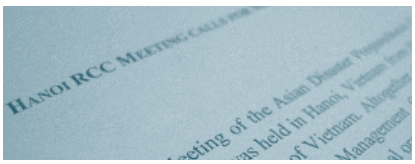
for integrating CBDRM into local government policy and programming. To support this effort, research has been carried out to assess the existing capacities of disaster preparedness institutions, and a database was compiled and developed to document CBDRM practices. In addition, two meetings with private sector companies were held in Viet Nam to mobilize their support for CBDRM. This Third Phase of the Partnerships for Disaster Reduction in South East Asia Project (PDRSEA 3) is also contributing to the strengthening of networking and partnerships among disaster management practitioners in the region through a 4th Disaster Management Practitioners Workshop (in collaboration with UNISDR) and a joint meeting of regional committees. In the earlier two phases, PDRSEA had worked for the capacity building of partner NGOs in the Project countries and the development of tools and techniques. ●

For more information on CBDRM and PDRSEA 3, please contact Loy Rego, ADPC, ajrego@adpc.net or LeHuu Ti, UNESCAP, ti.unescap@un.org

Asian countries urged to mainstream disaster risk management into development

The 5th Meeting of the Asian Disaster Preparedness Center Regional Consultative Committee on Disaster Management (RCC 5) was held in Hanoi, Vietnam, from 18 to 20 May 2005, attended by 32 representatives from 18 RCC member countries, including heads of national disaster management offices and 47 observers from regional organizations, UN Agencies and bilateral and multilateral funding agencies. In a statement called "Hanoi RCC 5 Statement on Mainstreaming Disaster Risk Management in Development in Asian Countries", the meeting called for a strong mobilization of Asian countries to mainstream disaster risk management into national development policy, planning and implementation as well as in priority sectors. The Statement also requested the Asian Disaster Preparedness Center (ADPC), in its capacity as Secretariat of the RCC mechanism, to develop a set of guideline documents for mainstreaming disaster risk management and support the implementation of priority implementation projects (PIPs) with relevant partners and donors. ●

For more information, please contact Loy Rego, ADPC, ajrego@adpc.net



Disaster risk reduction activities in Central Asia

A Tajikistan disaster risk management partnership REACT (Rapid Emergency Assessment Coordination Team) was set up in 2000 by OCHA to strengthen collaboration of disaster response in Tajikistan. The REACT partnership has grown and is gradually moving to be led by the Ministry of Emergency Situations (MoEs), with a larger degree of preparedness and mitigation activities. Today, REACT's major objectives are to facilitate collaboration between the Government of Tajikistan, the civil society and the international community in meeting effectively their responsibilities in terms of relief, prevention of, preparedness against and recovery from natural and man-made disaster situations. Under the leadership of the MoES, REACT partners coordinate disaster response as well as all disaster risk reduction activities. Participation in the REACT partnership is voluntary and encouraged for all actors in the field of disaster management. It is currently composed of representatives from line ministries, UN Agencies, donors and NGOs and includes various sub-groups - some of which are of a sectoral nature focusing on contingency planning and response, WCDR (World Conference on Disaster Reduction) working groups that have been established to facilitate the coordination of the implementation of the Hyogo Framework for Action, a Rapid Response Coordination Team taking the lead in the coordination of response to and assessment of all kinds of disasters, and Regional REACT partnerships in various parts of the country. *For detailed information, please contact Nigina Alieva, nigina.alieva@undp.org*

The Third Regional Consultative Meeting on Disaster Risk Reduction in Central Asia will take place in Kyrgyzstan on 23 and 24 May 2006. The goal of the meeting will be to enhance national ownership and leadership in promoting and mainstreaming disaster risk reduction in national policies and programmes, and to promote regional cooperation and collaboration in the field of disaster risk reduction. Participants in the Second Regional Consultative Meeting addressed the issues of establishing national platforms and long-term strategies for disaster risk reduction. Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan participated in the World Conference on Disaster Reduction (WCDR) and have sought to adjust to the Hyogo Framework for Action 2005-2015. The event is organized by UNISDR Central Asia in cooperation with the MoES and UNDP in Kyrgyzstan. *For more information, please contact Tine Ramstad, UNISDR Central Asia tine.ramstad@undp.org*

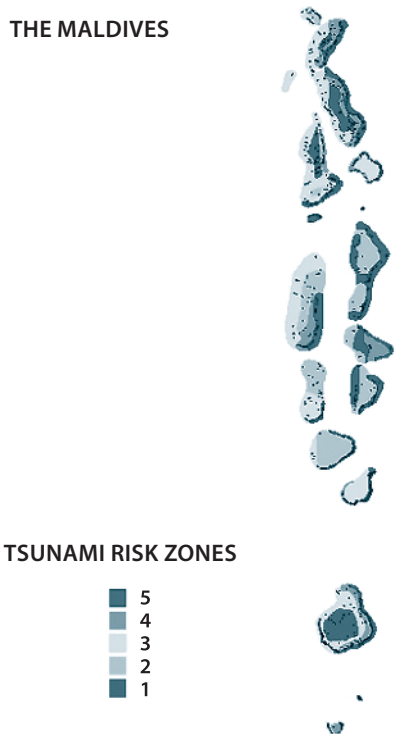
A joint project on "Capacity-Building of the Population of the Republic of Kyrgyzstan in Disaster Reduction and Disaster Preparedness" by the Asian Disaster Reduction Center (ADRC) and the Republic of Kyrgyzstan has been launched. Two seminars on the above subject were conducted by the Ministry of Emergency Situations (MoES) in Bishkek and Osh, respectively on 6 and 7 February 2006, in the context of the cooperative project. The objectives of the project were to raise public awareness on disaster reduction and preparedness issues, increase their knowledge and skills and incorporate a comprehensive disaster reduction approach in their daily lives. To this end, the MoES published a set of documents including a manual for the population, cartographical and training manuals, an action programme and maps of administrative districts, most of which were both in English and Russian. The seminar held in Osh was inaugurated by Mr B.R. Aidaraliev, First Deputy Minister in the MoES; the one in Bishkek by Mr A. K. Camchibekov, Deputy Minister in the MoES. Mr Masayuki Kitamoto, Executive Director of ADRC, congratulated the MoES on the development of the comprehensive training/educational material and on the successful conduct of the seminars, emphasizing that the effective use of these material is key to enhancing people's preparedness to disasters. Total Disaster Risk Management (TDRM) was highlighted as a useful tool that should be widely adopted and implemented in the Republic of Kyrgyzstan. *For more information, please contact the Asian Disaster Reduction Center (ADRC) at tsunozaki@adrc.or.jp*

Development of disaster risk profiles: the case of the Maldives

The 2004 Indian Ocean tsunami provided an opportunity for affected countries to examine the risks and vulnerabilities of their national coastal areas. Long regarded as "safe" from such natural catastrophes, the Maldives were for the first time made aware of the damage a natural disaster could cause from as far away as 2,500 km. The loss of human lives, the impact on the economy and infrastructure, and the reconstruction costs (estimated at 470 million US dollars or 62 % of annual GDP) forced the disaster reduction and risk management issue onto the government's policy agenda. It became clear that an examination of how the country's development choices led to the underlying risks that contributed to the large-scale damage was seriously needed.

A disaster risk profile study for the Maldives, prepared by Risk Management Solutions India (RMSI Pvt Ltd), was commissioned by UNDP as part of a larger UNDP three-year Programme on Disaster Risk Management aimed at providing guidance to support the Government in reducing and managing effectively the vulnerability and risks which might ensue from any future natural disaster. The risk profile provides a comprehensive risk analysis of the Maldives with a description of various hazards, vulnerabilities and potential damage and losses which are represented with tables, figures and maps, and will therefore play a critical role in deciding which islands can be designated as "safe islands" as the national development programme could easily factor in the risks identified by the study. The risk profile determines the probability of hazard events based on geographical evidence, historical data and projections for future hazards, thereby providing the Maldives' most complete hazard mapping exercise to date – and assesses the full range of vulnerabilities to multiple hazard events and specifically analyzes the range of vulnerabilities in order to develop informed coping and adaptive strategies for the future in terms of developmental planning and disaster preparedness institution-building, prevention and risk mitigation activities. This will allow new plans and programmes to be reviewed in terms of their potential to reduce or aggravate vulnerabilities and risks.

The study provides GIS-based hazard and risk mapping and delineates each hazard independently, as well as offers a composite analysis for all hazards. The maps indicate potential hazards and risks on an ordinal scale (e.g., high-moderate-low) and are thematically represented at island level. The natural hazards analyzed are potential tsunamis, storms (including wind, rainfall and surge hazards), earthquakes and sea level rises. Vulnerability assessments examine both physical and socioeconomic aspects. The building stock of several islands is analyzed in terms of their vulnerability to various hazards. For the social vulnerability assessment, much of the data are taken from UNDP's 2004 Vulnerability and Poverty Assessment and correlated with qualitative and perceptional data collected from community interactions. A risk index scale of 1-5 is used to map every island and is represented either as very low, low, moderate, high or very high.



The study has identified new facts about the country's disaster profile. In addition to the obvious hazards presented by tidal waves, heavy rainfall, flooding and tsunamis, the country could also be prone to earthquakes. At least three atolls at the country's southern end are located near fault zones that can generate earthquakes up to 7-8 (Modified Mercalli Intensity). In light of this, there is need to undertake a deeper risk analysis of this particular hazard, and possibly review building codes to ensure safer construction practices.

In addition to acting as a guide for improved disaster management planning, the study provides a significant opportunity to work on a GIS platform as it has already developed digitized maps with land boundaries for 1,037 islands, which will constitute an important planning tool for national development practitioners. Above all, the study is intended to galvanize political momentum to reorient thinking about development policies in the Maldives. Despite its intention to primarily serve disaster reduction practitioners, the study has broad-based implications for all sectors and draws attention to key development issues. Development must be viewed in terms of its impact on disaster risk and investing in risk reduction should be part of national development and planning strategies. UNDP's disaster risk management programme for the Maldives will focus on the key concerns highlighted by the study and will continue to seek ways to strengthen policy planning by supporting further assessments and analysis at sub-national level which will be factored into a national risk reduction development policy. The "Risk Profile for the Maldives" will be available in June 2006. ●

For more information, please contact Rita Missal, UNDP Maldives at rita.missal@undp.org

Thematic areas of focus

Integration of Disaster Risk Reduction into development processes

DISASTER RISK REDUCTION (DRR) AS PART OF UN DEVELOPMENT ASSISTANCE PROCESS IN THAILAND

The UN Country Team for Thailand has worked closely with UNISDR Asia & Pacific in mainstreaming Disaster Risk Reduction (DRR) into the Royal Thai Government's development plans by integrating DRR into UN Development Assistance Framework (UNDAF) document for Thailand (renamed "United Nations Partnership Framework", UNPAF, by the Royal Government of Thailand). The document, which provides a comprehensive, collective and integrated UN System response to the national priorities and needs identified for Thailand within the framework of the Millennium Development Goals (MDGs), does recognize disaster risk reduction as one of the priority areas of the Royal Thai Government over the next five years by contributing to environmental management, local governance and the access of vulnerable communities in undeserved areas to quality social services, especially to education. In light of the Hyogo Framework for Action (HFA), referred to as the international framework guiding the development and implementation of disaster risk management strategies, the UNPAF Thailand was presented as a good illustration on how to mainstream DRR into national development planning. The document was approved following two strategic meetings with all Ministries of the Royal Thai Government and the donor community, including the UNISDR, and signed during a high-level ceremony held on 7 April 2006. *For more information on UNPAF, please contact UNDP Country Office for Thailand, barbara.orlandini@un.or.th or UNISDR Asia & Pacific , rosec@un.org for specific aspects linked to DRR.*

UNDP MAINSTREAMS DISASTER RISK REDUCTION INTO ITS DEVELOPMENT PROGRAMMING

In 2005, UNDP's Bureau for Crisis Prevention and Recovery (BCPR), with support from the Canadian International Development Agency (CIDA), embarked on formalizing a global initiative for mainstreaming disaster risk reduction into its development programming. The initiative has three main objectives: (1) To support the development of appropriate policies, tools and human resource capacity for mainstreaming disaster risk reduction into development activities; (2) To provide a platform for advocacy and exchange of mainstreaming experiences; and (3) to support the harmonization of these tools and practices among all development actors. A workshop, held in September 2005 in Geneva, initiated a consultative process among UNDP country offices, and provided a forum for discussion and input from the wider development community. Draft guidelines for integrating DRR into Common Country Assessment/UN Development Assistance Framework (CCA/UNDAF), democratic governance, poverty reduction and energy and environment practice areas were presented for discussion at the workshop. The workshop participants included UNDP practice managers, representatives from 12 selected UNDP country offices that are currently in the development phase of the CCA/UNDAF, and key international organizations. As a follow up to this consultative workshop, the UNDP is presently finalizing the guidelines for discussions with the UN Development Group (UNDG). In due course, the guidelines will be posted on UNDP web pages for implementation by UNDP country offices. CIDA support will be initiated as a pilot exercise in 12 high-risk (UNDP programme) countries, namely Tajikistan, Georgia, Malawi, Mozambique, Iran, Syria, Guatemala, Barbados, Jamaica, Niger, Cambodia and India. ●

For more information, please contact UNDP-BCPR Delhi through Shefali Juneja at shefali.juneja@undp.org

Financial mechanisms for disaster risk reduction

PROVENTION CONSORTIUM FORUM ON "INCENTIVES FOR REDUCING RISK"

ProVention Consortium held its second Annual Forum in Bangkok, Thailand, on 2 and 3 February 2006 with representatives from Governments, international organizations, international financial institutions, academic bodies, the private sector and civil society. The meeting focused on the issue of "Incentives for Reducing Risk", considering political, economic, social and environmental perspectives for a more proactive and preventive approach to dealing with disaster risk and vulnerability. Among a range of topics discussed, the meeting gave particular attention to insurance and other mechanisms for risk transfer to better mitigate the impact of natural disasters on the poor. Noting that poverty excludes many from standard risk transfer mechanisms, the participants looked at the promise of both community-level microinsurance programmes to strengthen both sustainable livelihoods and risk reduction activities and macro-level private-public insurance partnerships among national governments, international financial institutions and the private sector to better cover public disaster liabilities. Successful pilot programmes to develop affordable microinsurance

schemes were noted, particularly in India, although there still exist challenges in up-scaling, developing appropriate regulatory institutions, collecting evidence of benefits to clients, and strengthening incentives by linking the programmes to proactive risk reduction. World Bank plans to develop a Global Insurance Index Facility were also presented along with calls to establish a high-level task force to explore frameworks for linking risk reduction and risk transfer financing at national and regional levels. The dire need for such solutions was highlighted by observations from the ongoing reconstruction for the Indian Ocean tsunami that little attention has been given to ensuring that the thousands of new buildings being reconstructed are adequately protected by either existing market insurance or new micro-insurance programmes. ●

A comprehensive report from the Forum as well as copies of the presentations and background papers presented in Bangkok are available at www.proventionconsortium.org

Water-related hazards, coastal areas and sea level rise management

COMMUNITY-BASED DISASTER RISK REDUCTION TOOLKITS IN INDONESIA

UNESCO Jakarta's Coastal and Small Island (CSI) Unit has been working with the Indonesian Development of Education and Permaculture (IDEP) Foundation in the production of a Community-Based Disaster Management (CBDM) toolkit, with the aims of disseminating important information needed by Indonesian people in facing and dealing with natural and human-induced disasters. In 2005, 1,000 kits were successfully produced, and an initial Training of Facilitators was held in Bali, attended by local NGOs involved in community-based disaster risk reduction efforts. With the objective of further disseminating DRR toolkits to communities, CSI, in cooperation with IDEP, has joined efforts with PRAMUKA (Indonesia's Scout Movement) and MPBI (Masyarakat Peduli Bencana Indonesia) in introducing this toolkit during the forthcoming national meeting of PRAMUKA officials from each province of Indonesia. The meeting, officially entitled Jambore Nasional (National Jamboree), will be held in June 2006 at the Jatinangor campgrounds in West Java. It is envisioned that the information dissemination process will be more effective in the future, especially with PRAMUKA's national network and vast outreach into the community. If the activity proves successful, it will serve as a good example in disseminating DRR awareness for neighbouring and other disaster-prone countries.

COMMUNITY FLOOD PREPAREDNESS PROJECT IN EAST JAKARTA

UNESCO Jakarta also developed a "Community-Based Flood Mitigation and Preparedness Project" in East Jakarta. With its

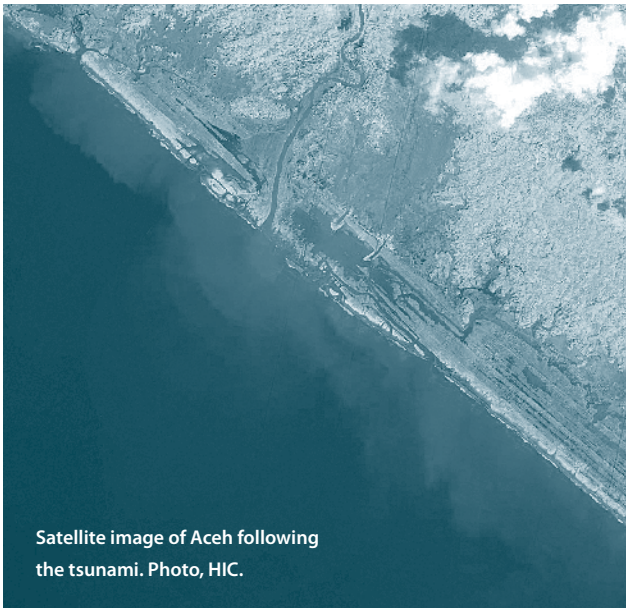
population exceeding 12 million, Jakarta is considered as one of the most problematic "mega-cities" in the world for its intricate urban development issues. Being located in a coastal lowland area and cut across by 13 rivers and many other streams, Indonesia's capital city is affected by recurrent inundations, especially during the high rainy season. A high-density area (57,000 inhabitants/km2) of Bidara Cina Sub-District, East Jakarta, was selected as pilot site for the implementation of the Community-Based Flood Mitigation and Preparedness Project (covering more than 3,000 residents). Located along Ciliwung River, this area is particularly vulnerable to inundations and affected by severe five-year recurrent flooding. The Flood Mitigation Project, implemented between July 2003 and October 2004, was a collaboration between UNESCO Jakarta and LAPI-ITB (Foundation for Research Affiliation and Industry - Institute of Technology of Bandung). It was designed to improve the community's understanding and awareness of the natural and social components of floods and aimed to strengthen people's preparedness. The final objective was to change the community's behaviour in order to reduce the vulnerability of the residents and their belongings. The main activities of the project promoted mitigation measures focused on non-structural flood mitigation and preparedness measures, which included public education and training to the community and the establishment of a forum serving as a knowledge multiplier to the wider community. The continuation phase of the project in 2005, implemented in collaboration with a local-based NGO called "Centre for Agricultural Community Development", mostly focused on strengthening the forum established in the previous phase. Follow-up activities, such as leadership training and income-generating activity training, were organized to improve the capacity of the forum, particularly in running the organization and maintaining funding sources for regular activities. The forum also acquired the knowledge and capacity to better deal with floods, and to be prepared before, during and after a disaster. Most of all, through its visibility within the community and through the daily contacts that its representatives entertain with other residents, the forum is an important channel for disseminating information and ensuring that the whole community can better react to future floods. The results of the project proved the importance of two simple but fundamental principles when dealing with disaster mitigation and preparedness: *community participation* and *bottom-up approach*. Spontaneous community participation in all project phases is important to ensure the effectiveness and efficiency of mitigation measures. Community participation is especially needed not only to identify priority actions and target groups, but also to increase the visibility and legitimacy of proposed activities and measures. Thanks to a bottom-up approach, the community itself, through the forum, developed different proposals (waste management, forum strengthening, technical attempts for flood preparedness) to improve its own capacity to cope with floods. ●

For more information, please contact Dr Jan H. Steffen, UNESCO Jakarta, j.steffen@unesco.org

Space technology application to disaster management

TOWARD A NETWORK OF SATELLITE DATA PROVIDERS FOR DISASTER MANAGEMENT

Seventy participants from space agencies, disaster management authorities and related line agencies from 18 countries and the ASEAN Secretariat, the Asian Institute of Technology (AIT), the United Nations Office of Outer Space Affairs (OOSA) and the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) attended the first Joint Project Team meeting for establishing a disaster risk management support system in the Asia-Pacific region. The meeting discussed the implementation plan of the Sentinel-Asia project, the objective of which is to establish a network of satellite remote sensing data provider nodes, local service provider nodes and research and training nodes. It will use data acquired from satellites for disaster management, to address disasters such as wildfires and floods. The meeting also agreed upon the terms of reference of the Joint Project Team and decided to establish a technical team to work out details of the implementation plan. Sentinel-Asia is regarded as an important first step towards establishing a disaster management support system in the Asia-Pacific region, the concept of which was discussed at the 12th Session of the Asia-Pacific Regional Space Agency Forum held from 11 to 13 October 2005 in Kitakyushu, Japan. The first Joint Project Team meeting for establishing a disaster risk management support system in the Asia-Pacific Region was held in Hanoi, Viet Nam, on 14 and 15 February 2006 by the Japan Aerospace Exploration Agency (JAXA) in cooperation with the Department of Geography of the Vietnamese Academy of Sciences and UNESCAP. JAXA plans to organize the next meeting of the Joint Project Team in Bangkok on 27 and 28 June 2006, in cooperation with the Geo-Informatics and Space Technology Development Agency (GISTDA) of Thailand and UNESCAP.



Satellite image of Aceh following the tsunami. Photo, HIC.

UNESCAP SEEKS USE OF SPACE TECHNOLOGY IN REGIONAL MECHANISM FOR DROUGHT MANAGEMENT

As a follow-up to the Asian Conference on Disaster Reduction, UNESCAP is organizing a consultative meeting where senior experts from key agencies of major contributory countries will gather in Beijing on 29 and 30 June 2006 to discuss practical and concrete mechanisms and modalities for an operational networking using space technology to support drought disaster reduction in the Asia-Pacific region. The concept of the mechanism will be further discussed with a wider participation of member countries at a regional workshop scheduled to be held in Hong Kong, China, in conjunction with the meetings of the Regional Working Group on Remote Sensing, GIS and Satellite-based Positioning, and the Regional Working Group on Meteorological Satellite Applications and Natural Hazards Monitoring from 25 to 28 September 2006. Under the Regional Space Applications Programme for Sustainable Development in Asia and the Pacific (RESAP), UNESCAP is promoting regional cooperative mechanisms in space technology applications for disaster management. Floods and drought, considered as the major types of disasters commonly affecting most countries in the region, are recommended to be dealt with as priority. The Asian Conference of Disaster Reduction was hosted by the Government of China from 27 to 29 September 2005 in Beijing. The Conference called for enhanced regional cooperation to implement the Hyogo Framework for Action. The Regional Workshop on Drought Monitoring and Assessment Using Space Technology was organized UNESCAP from 3 to 7 May 2004 in Hyderabad, India, with the Indian Space Research Organization (ISRO) and the National Remote Sensing Agency (NRSA) under the RESAP project called "Capacity Building for Disaster Management in Asia and the Pacific". ●

For further information on the above two initiatives, please contact Wu Guoxiang, Space Technology Applications Section, UNESCAP, escap-stas@un.org.

Gender considerations

ADPC/UNIFEM WOMEN'S DAY ON "EMERGENCIES AND THE STRENGTH OF WOMEN"

The Asian Disaster Preparedness Centre (ADPC), in partnership with the United Nations Development Fund for Women (UNIFEM), marked the 2006 International Women's Day with an event celebrating "Emergencies and the Strength of Women" on 8 March 2006 at The Royal Princess Hotel, Larn Luang, Bangkok. The event acknowledged and honoured outstanding women and organisations such as Her Excellency Mrs Merete Fjeld Brattested, ambassador of Norway in Thailand, and Mrs Prateep Ungsongtham Hata, secretary-general of Duang Prateep Foundation. Other organizations actively involved in grassroots activities, such as the World Vision Foundation of Thailand, were also represented to give an insight of women's unique role

in disaster situations and post-disaster rebuilding process at community level. The media and representatives from other international organizations such as UNAIDS (UN Programme on HIV/AIDS), UNISDR, UNESCO, UNICEF and other NGOs such as Forum-Asia, were also represented.
For more information, please contact Roopa Rakshit, ADPC, at roopa@adpc.net

ESCAP/UNIFEM WOMEN'S DAY ON "WOMEN IN DECISION MAKING"

The 2006 Women's Day was also marked by UNESCAP in Bangkok through the organization of an international workshop on "Women in Decision Making" in collaboration with UN Fund for Women (UNIFEM). The event benefited from the participation of Dr Saisuree Chutikul, former minister to the Office of the Prime Minister and former advisor to the Office of the Permanent Secretary, and Public Sector Development Commissioner Dr Orapin Sopchokchai. The two high-ranking women shared their experience about the role and challenges faced by women in politics and the private sector business. The discussions strongly referred to the Beijing Platform for Action (BPfA) and reaffirmed the obstacles that a persistent exclusion of women from the decision-making sphere represents to sustainable democracy, economic development and social peace worldwide. ●

For more information, please contact Dr Jean D' Cunha, Regional Programme Director, UNIFEM East & Southeast Asia at jean.dcunha@unifem.org

Innovative measures in disaster risk reduction, preparedness

A PROMISING INITIATIVE IN DISASTER REDUCTION INFORMATION SYSTEM DEVELOPMENT

A complete process of Core Member Meetings (CMM) took place in various world regions in the context of a promising initiative in the field of disaster reduction information system development entitled "International Framework for the Development of Disaster Reduction Technology List on Implementation Strategies - Disaster Reduction Hyperbase (DRH)". The Asian meeting on this topic took place on 27 and 28 February 2006 in Tsukuba, Japan, to support the development of a disaster reduction hyperbase as a contribution to the implementation of the Hyogo Framework for Action. Recognizing that the development of the Disaster Reduction Hyperbase (DRH) would be a significant contribution to reducing vulnerabilities and enhancing integrated disaster risk management at regional level, the participants agreed on the following:

- DRH will be an open and interactive database of implementation technologies. It will provide a forum for facilitating collation, testing, dissemination of mitigation models, and will link with relevant initiatives.

- Within a scheme of coordination, development and information nodes, participants will mobilize resources (organizational, fundraising and kind) for contributing to successful achievement of the DRH mission.

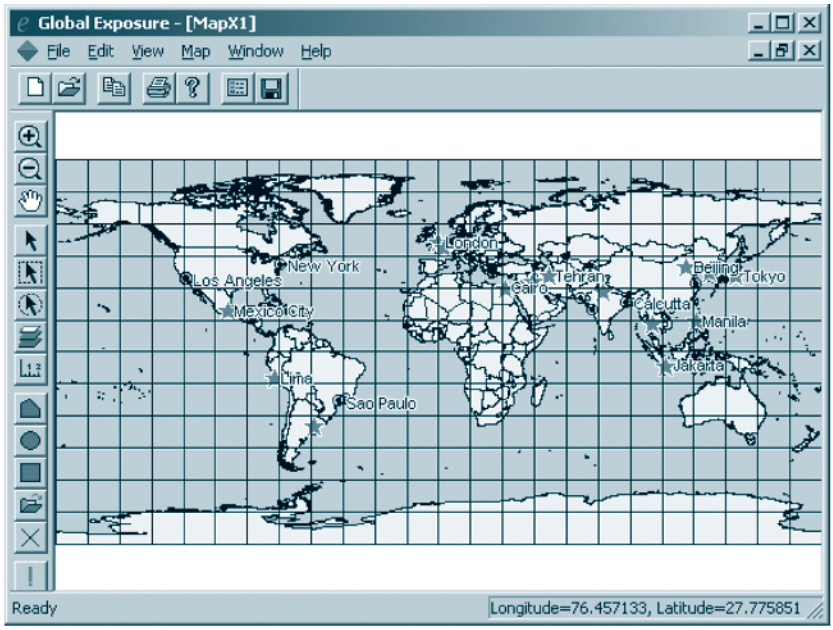
- DRH development activities contribute to the implementation of the Hyogo Framework for Action 2005-2015 adopted at the January 2005 World Conference on Disaster Reduction.

Other meetings will be planned to assess progress in implementing the DRH. *All the project documents related to the three the regional meetings of Africa and Europe, Asia and the Americas are available at www.edm.bosai.go.jp/M-N.htm. For more information, please contact Pedro Basabe, UNISDR, basabe@un.org or Naho Ikeda, Earthquake Disaster Mitigation Research Center, Japan, ikeda@edm.bosai.go.jp*

"GLOBAL EXPOSURE": A TOOL FOR QUANTIFYING WORLD EXPOSURES TO DISASTERS

A spate of recent catastrophes spawned by terrorism, earthquakes, tsunamis and hurricanes has drawn more attention to the importance of spatially-explicit, geocoded data on exposures or elements at risk. To accommodate this, Risk Frontiers (www.riskfrontiers.com) has developed an easy-to-use, fine-resolution global exposure quantification platform entitled Global Exposure. Global Exposure capitalizes on the most detailed world population distribution dataset and a 1 km-resolution LandScan from the US Oak Ridge National Laboratory. It also has the facility for generating any exposure and vulnerability surfaces, for example; using geocoded portfolios from an insurance company. Other spatial layers such as high-resolution global elevation (latest from NASA's Shuttle Radar Topography Mission, SRTM), distance to shorelines (based on the most detailed global shorelines from the US National Oceanic and Atmospheric Administration, NOAA), and earthquake ground shaking

intensity with a 10 % exceedence probably within 50 years (based on the Global Seismic Hazard Assessment Program, GSHAP) have also been prepared and included in a coherent format. The main features include:



- As Global Exposure is developed using MapInfo's MapX software, all GIS layers included in the installation or user-prepared information can be conveniently displayed together. Layer controls are similar to those in MapInfo Professional.

- Standard map browsing environment, including pan, zoom in, zoom out. Selecting features by pin point, rectangle or radius searching.

- Distance measurement, and latitude/longitude display.

- Save customized maps in workspace file, or copy map to other documents.

- Four flexible options to define any area of interest on a world map – polygon, rectangle, radius searching or file input (in MapInfo TAB format).

- Expeditiously generated analysis exposure reports by a mouse click.

- Reports in Comma Delimited text format, which can be directly opened in Microsoft Excel, ready for making graphs, charts and conducting further statistical analysis.

- For perils such as earthquakes, volcanic eruptions, industrial pollution and radiation, report will contain population numbers at a continuum of 1-km distance intervals. For coastal hazards like hurricanes, tsunamis and storm surges, reports will contain exposures at a function of distance to shorelines in km and elevation above mean sea level in metre.

- Easy-to-use GUI enables laypersons to become familiar with the software within a very short time.

- Specific global themes such as population, elevation, quake ground-shaking intensity zones, shortest distance to shorelines, world political boundaries, and a detailed dataset on cities of individual countries are included.

- All surface layers are prepared at a fine spatial resolution of 1 km. With users' request, the exposure quantification system can be modified at even finer resolution, less than 1 km.

The main difference of Global Exposure from other systems such as the newly launched, web-based USGS's PAGER (Prompt Assessment of Global Earthquakes for Response) is that Global Exposure is generic and applicable to all forms of perils with a regional impact. The system is standalone and desktop based. Once installed, Global Exposure allows users to freely explore numerous disaster scenarios or impact assessments. This tool should be of interest to high-level international government agencies, major insurance companies and media outlets. See screen grab of the software above. ●

For more information, please contact Risk Frontiers through their website at www.riskfrontiers.com

SPECIAL FOCUS: DISASTER RISK REDUCTION & EDUCATION

Education-related initiatives & projects

A case study of schools in India

The Hyogo Framework for Action charts out the use of knowledge, innovation and education as a priority area to "build a culture of safety and resilience at all levels". In its Tenth Five-Year Plan for 2002-2007, the Government of India emphasizes the need to include disaster management in the country's existing education system. Under the current National Disaster Risk Management (DRM) Programme of the Government of India and UNDP, a host of initiatives have been designed towards reducing the vulnerability of school children through knowledge, training and awareness campaigns.

DISASTER MANAGEMENT IN SCHOOL CURRICULUM

The first significant step towards reducing vulnerability of children in schools has been the introduction of "Disaster Management" as a compulsory theme in school curricula at national and state levels. The Central Board of Secondary Education, one of the national boards for school education, compiled the first textbook on disaster management at secondary school level in 2003, followed by two more over the next few years. The series, called "Together Towards a Safer India", is meant for 13 to 16-year-old children across 7,500 schools in India and abroad.

Through the curriculum, school children are introduced to key concepts and DRM practices in a phased approach. In the first year, children are introduced to key terms which relate to their interaction and exposure to the natural environment. The differ-

SEEDS & the ADRRN

SEEDS: Together with the Government of the Indian State of Gujarat, *SEEDS (Sustainable Environment and Ecological Development Society, India)* has initiated a comprehensive School Safety Programme, the first of its kind in the country. The programme covers 150 schools in its pilot phase. *More information are available on the following web site: www.gsdma.org)*

ADRRN: In February 2002, the Asia Disaster Reduction Centre (ADRC) Kobe and the United Nations Office for Coordination of Humanitarian Affairs (UN OCHA) in Kobe with the assistance of the ASEAN Foundation, brought together more than 30 NGOs from all over Asia to discuss the need for a network of NGOs for Disaster Reduction & Response in Asia….the *Asian Disaster Reduction & Response Network (ADRRN)* was born. This loose body of NGOs was consolidated in December 2003 and in June 2004, the structure, content and direction of the ADRRN was clearly formulated and implemented. ADRRN's mission is to promote coordination and collaboration among NGOs and other stakeholders for effective and efficient disaster reduction and response in the Asia-Pacific region. It is currently chaired by Mercy Malaysia. *For more information on ADRRN's detailed objectives, member and Network Coordination Committee, please visit http://www.adrrn.net or contact Dr Jemilah Mahmood, Chairperson,Coordination Committee at president@mercy.org.my*

ent natural hazards and human-induced disasters experienced in India are the primary subject matter at this stage. The cause and impact of natural phenomena are explained, and simple guidelines on preparedness and mitigation are also discussed in the curriculum. In the second year, the curriculum deals with the concepts of disaster management and disaster risk reduction. The emphasis is on familiarizing children with the community's role in disaster management and school planning for disaster management. In the third year, children are exposed to various survival skills, search and rescue techniques, alternative communication systems useful during disasters, safe construction practices and contingency planning for all community members.

The success of the initiative at national level has encouraged state education boards in 13 hazard-prone States to introduce disaster management as part of the secondary school curriculum at state level. Earthquake risk mitigation themes have also been included in specially designed colouring books for children in the primary age group.

TRAINING OF TEACHERS IN DISASTER MANAGEMENT

At national level, several training sessions have been offered to schoolteachers to equip them in taking up this newly introduced theme. To enforce the "health, safety and well-being" of children in the long run, India's Ministry of Human Resource Development and the National Council of Education Research and Training have designed self-learning training modules for teachers and teacher educators, with technical support from UNDP. The package comprises six themes: comprehensive framework for safe school environment, disaster risk reduction, structural and non-structural safety of schools, health and well-being of students, safety in administration of mid-day meals in schools, and fixation of roles and responsibilities of different functionaries in school safety. At district level, teachers have been introduced to the key concepts of disaster management and disaster preparedness.

DRM ACTIVITIES IN SCHOOLS

Besides including disaster management in the school curriculum, other activities have also been undertaken to actualize DRM practices in schools. Mock drills are organized with students and teachers, as well as training in first aid, rescue and fire fighting, and "hazard hunt" activities to identify hazardous areas within the school. Special extra-curricular activities have been designed for spreading awareness in schools - painting, poster making, essay writing, and debate competitions and rallies on disaster-related themes.

SCHOOL SAFETY PLANS

A crucial component of Disaster Risk Management in schools is the issue of school safety. School safety plans are being designed, comprising two components - hazard identification/safety assessment and planning for response. Structural and non-structural safety of buildings is being assessed and inventories of available resources are being drawn up. School evacuation plans are also being developed and disaster management teams (of students, teachers and other staff) and disaster management committees

UNISDR field libraries

A SUCCESSFUL CONTRIBUTION TO THE NON-FORMAL EDUCATION PROCESS

The "Inter-Agency Field Library on Disaster Reduction" is part of the UN Inter-Agency Library on Disaster Reduction based in Geneva under the coordination of the UNISDR Secretariat. The objectives of the Inter-Agency Field Library are to enhance larger access to information and knowledge on disaster reduction by various target groups in hazard-prone countries, through active partnership with disaster reduction practitioners, researchers, educators, national and local leaders, regional institutions, local communities, libraries, NGOs, UN and other international development agencies, and to support ongoing efforts to build a culture of disaster prevention that ultimately will result in communities that are more resilient to the effects of natural, technological, environmental and biological hazards. The "Inter-agency Field Library" initiative initially focused on addressing the needs of countries most affected by the December 2004 Indian Ocean tsunami, driven by the desire to equip the local communities affected by disasters with the necessary information and knowledge on disaster risk reduction. As this initiative is a concrete action that helps National Governments make disaster risk reduction a national and local priority - as underlined in the Hyogo Framework for Action, the UNISDR Secretariat has worked hard to foster the development of the inter-agency initiative together with WHO, UNDP, IFRC (International Federation of Red Cross and Red Crescent Societies), ProVention Consortium, the World Bank and UNEP in the last few months.

The Inter-Agency Field Library contains around 100 books and journals on disaster-related subjects, and is packed in a blue metal trunk on wheels. To make it user-friendly, a catalogue is being developed, together with guidelines. The Inter-agency Field Library initiative was piloted in Indonesia and India in collaboration with UNDP country offices and National Governments. The pilot field library initiative has been well received and appreciated. Based on the initial success and increased demands for the library, the UNISDR Secretariat will, with financial support received from the Indian Ocean Earthquake-Tsunami 2005 Flash Appeal (UN/OCHA), proceed during the first half of 2006 to distribute 10 libraries to countries most affected by the tsunami, including Indonesia (2 libraries), India (2 libraries) and the Maldives (1 library).

For more information, please contact Marie Lou Darricau, UNISDR Geneva, at darricau@un.org

Top, The Indian Home Minister at a launch ceremony for a UN disaster reduction library. Bottom, the UN disaster reduction library became a cultural attraction at a national exhibition marking the first anniversary of the tsunami in December 2005 in Jakarta.

(of senior students, administrative staff, local hospitals, fire service station, police station etc) are being formed.

The success of the DRM education approach is by no means final – it has more grounds to explore. The ripple effects of this wide-ranging initiative are reaching the community at large and will impact local-level disaster preparedness in future. Efforts to introduce disaster management as an area of specialization at higher levels of education such as colleges and universities have also begun. These achievements present a sound approach to mainstreaming DRM "through" and "in" education. The success of this initiative showcases a flexible and inclusive approach to mainstreaming disaster risk management concerns in other countries working under the Hyogo Framework for Action. ●

For more information, please contact UNDP-BCPR Delhi through Shefali Juneja at shefali.juneja@undp.org

Changing perceptions and practices in risk management: Climate Field Schools

Enormous recent advances in weather and climate prediction, combined with the shift in disaster management paradigm from crisis management to risk management, have provided developing countries with a unique opportunity to reduce vulnerabilities to extreme weather and climate events. In 2001, with support from the USAID Office of Foreign Disaster Assistance (OFDA) and the US National Oceanic and Atmospheric Administration's Office of Global Programs (NOAA/OGP), the Asian Disaster Preparedness Center (ADPC) began implementing a programme called "Climate Forecast Application (CFA) for Disaster Mitigation" in Indonesia, the Philippines and Viet Nam. In search of a communication tool that would connect intermediary and end users for the introduction of new technology to end users, as well as address their differing perceptions, several methodologies were assessed. The Farmers Field School for Integrated Pest Management (IPM) was found to be most effective, as it provided two-way learning of perceptions and practices.

Farmers in Losarang show a rainfall graph they have created from their own rainfall observations using improvised rain gauges. The farmers are now pilot testing a new planting calendar based on their enhanced understanding of rainfall patterns in their locality.

Taking the IPM Farmers Field School as a model, a Climate Field School (CFS) was developed in 2002 to facilitate the communication of climate information for reducing flood and drought risks in Indramayu District in West Java (Indonesia). The Indramayu Agriculture Office led the development of the CFS, in collaboration with the Directorate for Crop Protection (DITLIN) and the Meteorological and Geophysical Agency of Indonesia (BMG), with technical inputs from Bogor Agricultural University (IPB) and ADPC. Interactive training modules were developed covering the basic concepts of probabilistic forecasting, climate forecast products, methods of observing and recording climate data, use of historical data to assess impacts of climate variability on agriculture, and development of cropping strategies based on climate prediction scenarios.

The training programme was designed with: (1) training of agricultural extension specialists at district level to interpret and translate scientific climate information into potential impacts, and prepare response options; train trainers at sub-district level; and assist in refining CFS modules; (2) training of agriculture extension workers at sub-district level to communicate climate information in farmers' language; (3) disseminate adaptive farming practices, train farmers, facilitate farmers' adoption of the new technology (i.e. application of seasonal climate forecast in farming decisions) and assist in refining CFS modules; and (4) training of farmers. The training of farmers is conducted in two planting seasons (12 meetings in dry season, and another 12 in wet season) with knowledge application to farming operations.

The CFS was pilot tested in 2003 in three sub-districts of Indramayu District: Juntinyuat, Kandanghaur and Losarang. Participating farmers gained a systematic appreciation of climate variability from their assessment of the climate pattern in their localities, utilizing long-term historical climate data. Under the Climate Forecast Application (CFA) Programme, BMG provides to farmers a month ahead of the season for six rainfall regions in Indramayu , through agriculture extension workers, localized seasonal forecast of the onset of the dry or wet season, and the total rainfall within the season and with respect to the normal total rainfall during the season. Farmers use the forecast of the onset of the dry season (normal dry season is from April to September) to guide land preparation activities, and the total rainfall forecast to decide on which crop to plant and when to plant, etc. For example, if the BMG forecast says the dry season would be drier than normal, farmers start procuring water pumps or hand tractors while they can still get better prices. The seasonal forecast is complemented by the issuance of monthly forecasts of the total rainfall, as well as the normal rainfall during the month three months ahead of the forecast month. Farmers verify the forecast and monitor the progress of the dry season by observing the rainfall, utilizing improvised rainfall gauges (made from milk cans).

With the demonstrated success in the pilot sites, the Indramayu Agriculture Office is now replicating CFS in nine more sub-districts, with financial support from the District Government (Office of the Bupati). Replication in subsequent years is planned, with an annual budget of 100 million rupiah (about 11,000 US dollars) earmarked by the District Government to initiate CFS in 4 to 5 sub-districts every year. Efforts to scale up at national level are led by DITLIN, as part of its agricultural development programme. To complement these efforts, BMG has invested some 4 billion rupiah (about 440,000 US dollars) in 2006 for climate forecast downscaling to deliver localized forecasts in the replication sites. BMG plans to increase this budget to 12 billion rupiah (about 1.3 million US dollars) in 2007. All these efforts need to be complemented by farmers' resources (credit, farm inputs) to enable them to respond to the forecasts. The CFS may also be replicated to suit various stakeholders, e.g. plantation holders. However, further capacity building would be required in adapting the CFS curriculum. ●

For more information, please contact A.R. Subbiah, Director, Climate Risk Management, Asian Disaster Preparedness Center, subbiah@adpc.net

'Local Wisdom Award' presented to KH Muzammil Basuni and the Simelue Community in Indonesia

Surabaya, Indonesia, 29 March 2006: **PSB ITS (Centre for Disaster Management Studies) and MPBI (Indonesian Society for Disaster Management) has conferred the Local Wisdom Award to KH Muzammil Basuni, head of the Islamic Boarding School of Al-Hassan in Jember, East Java, during a Workshop on Emergency Preparedness for Environmental/Industrial Disaster held in Surabaya, Indonesia, with the support of the Indonesian State Ministry for Environment, UN-OCHA and UNEP.**

The Award was presented to KH Muzammil Basuni in recognition of his leading role in saving around 400 pupils (santri) during the most recent devastating landslides that occurred in Jember in January 2006. With his modest knowledge of the condition of Mt. Argopuro, the informal leader, who has no formal education background, noticed several hours before the landslides took place that the water from a nearby river had turned into darker colour although there was no rain. This condition led him to think that there must have been some landslides on the upper slope. After five hours of torrential rains, the water started to inundate the boarding school up to approximately half a metre high and soon the evacuation was initiated. Right before midnight, further flash flooding occurred, followed by a huge amount of debris that smashed into Panti Village, including the boarding school. The flash flood destroyed many villages, leaving 79 people dead and over 7,000 others homeless.

Lessons learnt from past disasters indicate that Governments cannot deal with disasters alone. Therefore it is important to take local wisdom into consideration as part of disaster risk reduction efforts.

Simelue Island, in the west of Banda Aceh (Indonesia), experienced tsunami disaster in the past, and developed local wisdom for early detection and prevention of *semong*, the local term for tsunami. In 1907, a tsunami similar to the 2004 one hit Simeleu Island. The local community learned that when the seawater receded from the seashore, they had to run to higher ground. This local wisdom saved the lives of Simeleu's people when the 2004 tsunami hit the area.

The award, which is aimed at raising community environmental awareness, is a strategic way to motivate the community in the development of early detection systems. The Centre for Disaster Management Studies and the Indonesian Society for Disaster Management proposed that KH Muzammil Basuni be nominated for the UN Sasakawa Award.

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ADRC supports mainstreaming of disaster risk reduction into non-formal education

It has been widely recognized that primary school education is one of the key elements in long-term disaster risk reduction strategies. School children can play an important role in real life situations if disaster risk reduction is integrated as part of the school curriculum. To address this vital need, the International Oceanographic Commission of UNESCO (UNSCO/IOC), through the UNISDR, supported the Asian Disaster Reduction Center (ADRC) to undertake and complete a Thailand tsunami curriculum and disaster preparedness project by the spring of 2006 under the Indian Ocean Tsunami Early Warning (IOTWS) Flash Appeal funds (details on IOTWS are provided in this issue under the "Disasters in the Region" Section).

Five Thailand schools were destroyed by the December 2004 Indian Ocean tsunami. Fortunately, no student was killed because the event occurred when no school was in session. However, the Thailand Ministry of Education acknowledged that their school system is not prepared for future tsunami events because: (1) no curriculum teaches students about tsunami hazards and safety procedures; and (2) no coastal school has emergency evacuation plans in the event of an approaching tsunami.

To contribute to the development of tsunami educational material, ADRC, in collaboration with experts from UNESCO/IOC, UNICEF, UNISDR, Kyoto University and Hyogo Prefecture Education Board (Japan), has coordinated with concerned government agencies, such as the Thailand Ministry of Education and Ministry of Interior,

the compilation and review of existing material on tsunami and other natural hazards. ADRC drafted pilot materials in English, which were subsequently translated into Thai languages. Initially, a committee of experts met in Bangkok on 19 January 2006 to provide consultation on the contents of the tsunami disaster education material. A second meeting – a three-day workshop - was convened from 1 to 3 March 2006 in Phuket to target two primary schools (4th to 6th grades) in the coastal provinces of Phuket and Phang Nga. The purposes of the workshop were to impart scientific information about tsunami and disaster preparedness to teachers, disseminate and explain the contents of tsunami education material and teachers' guide as well as the concept of tsunami evacuation drills, and to draft an example evacuation drill exercise with the pilot classes.

Emergency tsunami evacuation drill plans were formulated with the pilot school principals and teachers. Teachers explained the evacuation plans to the school children and drills were successfully executed. All the schools were advised to write both vertical and horizontal tsunami evacuation plans to be implemented based on a review of (a) how much notification time they have to react to an approaching tsunami, and (b) how much time it takes for a school's safe evacuation. Horizontal, inland evacuation was recommended if there was ample time to execute such an evacuation to completely exit a coastal impact zone. However, if there is little time for evacuation before the arrival of a tsunami wave, vertical evacuation to the highest floors is recommended in reinforced concrete structures.

Tab Lamu School in Phang Nga Province, with over 100 students, conducted a simple vertical evacuation drill into a newly built, reinforced concrete school building. The campus is located along a flat coastal area surrounded by dense jungle, with no nearby high ground. Kalim School in Phuket Province conducted a horizontal, inland evacuation starting from the coastline. About 30 students climbed up a hill to a designated safe area on higher ground. The concept of school evacuation drills was new to the two Thai pilot schools because fire drills are not routinely conducted. Finally, on 7 April 2006, a one-day workshop was held in Phuket to introduce tsunami classroom material and the tsunami evacuation drill concept to about 130 Thai educators. They learned the basic knowledge about earthquake and tsunami lectured by a UNESCO/IOC expert and a Kyoto University Professor, and also studied how to facilitate a classroom through an exercise of formatting class activities. A strong interest was also shown at the end of the seminar regarding evacuation drill in more complex situations, material for other grade student, integration to the school curricula, more information about tsunami and other natural disasters, etc. The questionnaire and comments provided by the participants at the end of the workshop were to be analyzed by the Ministry of Education and ADRC to evaluate the project and to verify the school teachers' needs in Thailand. ●

For more information on this project, please contact Akihiro Teranishi, Asian Disaster Reduction Centre, ADRC, teranishi@adrc.or.jp.

School earthquake preparedness programme in Indonesia

A training of trainers for teachers on "School Earthquake Preparedness Programme" has been carried out in Indonesia since 2001 by the Institute for Research and Community Empowerment – Institute of Technology of Bandung (LPPM–ITB) with support from USAID (2001), UNICEF (2002) and the Directorate General of Primary and Secondary Education, Ministry of National Education (2004). UNESCO was the first to be involved in supporting this activity in 1999, particularly in the development of education material in the form of posters, a comic book and leaflets, all containing information about earthquake phenomena, emergency response and earthquake preparedness. In 2001, an awareness and preparedness programme was launched, followed in 2002 by the development of an "Earthquake Preparedness Programme" for schools, as part of the life skills programme of the Ministry of National Education in 2002. The participants in the training programme are teachers, local education office personnel and representatives from Teacher Training Centre, selected from earthquake-prone regions in Indonesia. The training activities are conducted at national level to increase awareness and preparedness in schools. Up to 2004, 520 participants from 33 provinces attended the training. As part of UNESCO's commitment to contribute to the improvement of local skills related to disaster preparedness and mitigation, UNESCO Indonesia has collaborated with the Centre for Disaster Mitigation of the Institute of Technology of Bandung (ITB) to organize a Training of Trainers on School Earthquake Preparedness.

Following the April 2005 earthquakes in Mentawai Islands, two training sessions were organized for school teachers in Siberut Island in Mentawai District, West Sumatra Province, in May 2005 and February 2006. In particular, the second training had successfully trained 58 schoolteachers and representatives of local education institutions from North Siberut Sub-District and its surrounding areas. The overall attempt was also to prepare curricula and manuals to meet the standard criteria of the national education system. ●

For more information, please contact UNESCO Jakarta at Jakarta@unesco.org

Communications In Emergency Situations

INCREASED PARTNERSHIP WITH PRIVATE SECTOR

The Asian Disaster Preparedness Center (ADPC) has joined the first Emergency Crew with Télécoms Sans Frontières (TSF) in South-East Base in Leyte, the Philippines, from 16 February to 5 March 2006. An entire village has been wiped out by a massive landslide in Leyte, the Philippines, following heavy rains destroying hundreds of houses and claiming a number of lives. ADPC, in partnership with TSF, established an emergency telecommunications response mission in St. Bernard Operations Center to give efficient communication service mainly to local and international NGOs, local and provincial government officials, and coordination with UNDAC (UN Disaster Assessment and Coordination) personnel. The mission helped coordinate, offer support and assist the affected people, providing them a link with the outside world. The mission also helped coordinate and strengthen emergency relief efforts in the worst affected zones through its satellite communications equipment. This action reinforces the importance of communications in emergency situations. ADPC and UNISDR are cooperating on this issue.

For more information, please visit www.adpc.net/general/landslide_philippines_main.html

OCHA PARTNERS WITH DHL

A strategic partnership was developed between the UN – through the Office for the Coordination of Humanitarian Affairs (OCHA) in Kobe, Japan - and the private sector world leader in express mail, DHL, that culminated in the launching of a DHL Disaster Response Team Asia-Pacific in Singapore on 21 April 2006. The initiative was launched by Dr Vivian Balakrishnan, the Singapore Minister for Community Development, Youth and Sports and Second Minister for Trade and Industry, and Dr Klaus Zumwinkel, Chairman and CEO of Deutsche Post World Net. The DHL Disaster Response Team Asia-Pacific is a pool of specially trained experts to ensure that relief supplies reach people quickly and effectively in the event of a major natural disaster by helping to organize the handling, warehousing and loading of relief supplies for onward transportation in an effective manner. Other Disaster Response Teams will be established in Miami, Florida (USA), and in the Latin America and Caribbean regions. The head of OCHA-Kobe, Dr.Pujiono, insisted that the Disaster Response Team's services also cover disaster preparedness in addition to disaster response, and illustrate a step-forward looking approach for implementing the Hyogo Framework for Action (HFA) adopted by the international community at the World Conference on Disaster Reduction in January 2005 in Kobe, Japan, the implementation of which is coordinated by the UNISDR Secretariat "with the support of relevant implementing partners, including OCHA.

For more information, please contact pujiono@un.org

Below, DHL in partnership with OCHA launch the DHL Disaster Response Team Asia-Pacific in Singapore, April 21 2006.

Training opportunities in disaster management

Specific training courses

CAPACITY DEVELOPMENT OF ENTRY-LEVEL DRM PRACTITIONERS IN INDIA

Since the inception of the Government of India (GoI)-UNDP Disaster Risk Management Programme in 2002, there has been a marked evolution in the field of disaster management in India. A large group of DRM practitioners from varied fields (social scientists, engineers, architects, doctors, etc.) have been deployed by UNDP and United Nations Volunteers (UNV) India to carry forward the programme effectively. These practitioners, who are viewed as the "next generation" of disaster management professionals, need to be oriented and trained to effectively mainstream DRM at local and national levels. Bureau for Crisis Prevention and Recovery, (BCPR UNDP) and UNDP India have recently initiated a learning process known as "Capacity Development of Entry-Level DRM Practitioners in India: A Learning Initiative", which will be the first step to consciously develop a learning framework for entry-level practitioners. The initiative will be delivered in three phases. In the first phase, an initial orientation package is being designed for the entry-level practitioners to set up the necessary framework for their DRM roles. In the second phase, ongoing thematic training will be designed. In the third and final phase, the training modules will be institutionalized for the future cadre of DRM practitioners in the country. A preliminary survey has been conducted among the present DRM team to assess the specific knowledge, skills and attitude required to facilitate implementation of DRM initiatives. Support in terms of financial and human resources for the initiative have come from BCPR Geneva and the United Nations Disaster Management Training Programme (UN/DMTP). Linkages with the training and learning component of the Tsunami Regional Programme are being explored. Interest for capacity development of DRM practitioners has also been expressed by two neighbouring countries: Sri Lanka and Pakistan. The orientation package for the DRM practitioners in India will be tested through collective orientation workshops in the country in 2006. The success of the tools designed in India will provide the opportunity for adapting them to other countries' DRM communities in the region where DRM programmes are being implemented.

For more information, please contact UNDP-BCPR Delhi through Shefali Juneja at shefali.juneja@undp.org

TRAINING COURSE ON RISK REDUCTION AND MANAGEMENT FOR SUSTAINABLE COASTAL TOURISM DEVELOPMENT

The International Ocean Institute (IOI) presented the outline of a one-week training course on "Risk Reduction and Management for Sustainable Coastal Tourism Development" at the "International Workshop on Post-Disaster Assessment and Monitoring of Coastal Ecosystems, Biological and Cultural Diversity in the Indian Ocean and Asian Waters" held in Phuket, Thailand, from 20 to 24 February 2006. The course targets senior government, private sector, NGO and tourism stakeholder community planners and decision makers. It is designed to provide them with the necessary tools to enable them to move towards sustainable tourism development and risk reduction in tropical regions, with specific reference to integrated planning and decision making involving all stakeholders. The IOI-OceanLearn coordinates the training and capacity-building activities of the IOI (*www.ioinst.org*). The IOI, whose headquarters is in Malta, has 25 operational centres worldwide, and a 25-year tradition in the delivery of education, training and capacity building products to promote understanding and sustainable management of ocean and coastal spaces and resources to meet the needs of both developed and developing nations. IOI-OceanLearn is in the process of seeking funding to develop and deliver the course.

For more information on the course outline, contact Robin South or Damien Sweeney, IOI Regional Operational Centre for Australia and the Western Pacific, robin.south@impac.org.au or damien.sweeney@impac.org

COMMUNITY TRAINING IN LANDSLIDE AND FLOOD DISASTER RISK REDUCTION

Students from the Department of Physical Geography (DPG) of Gadjah Mada University (GMU), has just delivered a "Community Training in Landslide and Flood Disaster Risk Reduction" in Kebumen District, Indonesia. After undergoing specific training on the subject through regular classes in the DPG, the students spent two entire months (January and February 2006) with communities of the district in their respective villages, training and educating community members on this subject. The training is designed as part of the "Community Services" course under the overall framework of the "Integrated Luk-Ula Watershed Management" programme of the University.

For more information please contact jsartohadi@yahoo.co.id

GOLFRE

A group of internationally based universities and NGOs are coming together as the Global Open Learning Forum on Risk Education (GOLFRE) to bridge the existing gap between knowledge and practice – knowledge as it exists in universities and research centres, and practice as is carried out in the field by NGO workers, community volunteers and government field staff. The forum recognizes the strength of knowledge that exists with practitioners, and the value that academicians can add to it with their interpretations and analysis. Its mandate is to tap the tacit knowledge, practical wisdom and human capital latent in the minds and practices of field workers as the principal resource for training and education. The process will be one of learning from field practices, and feeding the lessons back to field practice in a reflective manner.

Another advantage that the approach offers, when used with a case teaching methodology, is that it constantly renews the knowledge base of universities through addition of analysed information on field practice. The interaction with field practitioners makes university knowledge more relevant.

An open learning model, with distance learning options and contact programs wherever possible, is the most viable means for creating this link between centres of learning and the field worker. The flexible and adaptable nature of the model makes it suitable for the "new age" student who may be on the job, and not having prior formal training.

The partnership, through its open learning forum, will work to launch a beta version of an online foundation course on community based disaster management in the next one year. Based on the success of this, advanced modules will be developed by partners over the next two years. The partnership will try to position itself to be able to operate as a global open university within five years. ●

For more information, please contact Golfre through their website www.golfre.org

Resource rights in disaster contexts

Examining resource rights for post-disaster reconstruction and sustainable recovery

Since 2004, three major disasters have affected millions of people across the world. Recovery efforts have been marked by a spate in reconstruction activity – often mediated by issues of where to reconstruct, whether to relocate or not, what to rehabilitate and by when?

Reconstruction strategies developed in the aftermath of recent disasters such as the Asian tsunami and the South Asian earthquake have a similar prioritization of guiding principles "to build back better". Common to these strategies has been the attempt at securing adequate shelter, getting people back to work and ensuring health, education and protection for all those affected. Such urgent reconstruction (and resettlement) activities have often been planned amidst considerations of how to ensure "fairness, subsidiarity, consultation, communication, coordination and transparency" (c.f. '*Tsunami Recovery in Sri Lanka: Damage and Needs Assessment*", 2005).

Where shall we rebuild our homes?

UNCERTAINTY OVER ACCESS TO, CONTROL OF LAND IN AFTERMATH OF MAJOR DISASTERS

A constant challenge facing "building back better" strategies has been in reconciling the urgency of delivering reconstruction of houses and settlements to affected people while ensuring their effective participation in the decision-making process. Decisions on reconstructing houses are inextricably linked with issues of gaining adequate and equitable access to livelihood sources, planning for sustainable land use, and ensuring access to basic public infrastructure facilities. Such decisions will have to hinge on a consensus with the disaster-affected people, and the outcomes will largely depend on community "capabilities" and resource "entitlements" (c.f. Amartya Sen).

Sri Lanka's recent attempt at people's consultations - carried out in 13 tsunami-affected districts - is a pioneering attempt at ensuring large-scale community consultations in the aftermath of a disaster. However, a perceptible gap remains in dealing with uncertainties over resource rights and communal entitlements in policy and legal terms. The post-tsunami debate on actualizing buffer zone limits is a key instance of the kind of uncertainty witnessed over access and control of land in the aftermath of major disasters. In effect, the furor seems to be about answering - just whose land is it?

LACK OF POLITICAL COMMITMENT

The opinions presented by different sections – scientists, policy makers, governments and affected communities - have been varied, but the underlying challenge remains common to all. It is about recognizing (and prioritizing?) different claims to private and communal resource rights - land, water and livelihood sources. In the aftermath of the recent disasters, problems associated with determining claims to resource rights have been considered an important area for discussion and resolution between governments and affected communities. But there has been a lack of political commitment in resolving such claims and clearly defining resource rights. Resource rights have in clear terms only been set aside as a long-term development concern.

In the past, discussions solely centred around land and resource rights as a minority rights issue in development project-related displacements, or as an indigenous people's issue in the context of industrial and rural development. Conflict-induced involuntary resettlements and environment-related concerns of adaptation to drought, flood, dryland degradation and natural resource management have also been areas for action by diverse agencies. A cursory survey of past engagements with resource rights issues reveals an evident gap in addressing resource rights in natural disaster contexts (pre- and post-disaster).

However, from recent experiences, five commonly experienced situations demonstrate why the issue of resource rights needs to be addressed for effective post-disaster reconstruction and risk reduction. *One*, in the aftermath of a disaster, there is much confusion due to the death of land titlers and/or the loss of ownership records in the absence of clearly defined (traditional/ statutory) resource rights - thus delaying compensations and reconstruction. *Two*, rights exist but people are not aware of their socio-legal claims due to lack of knowledge, communication or access to information and hence

rights cannot be exercised. *Three*, communities are aware of their rights, but these cannot be effectively exercised for lack of an equitable legal enforcement system. *Four*, in cases where the land is rendered useless and people are relocated with host communities elsewhere, there is a possibility of conflict due to competitive claims to rights over "common" or open access resources. Such situations clarify that clearly defined resource rights not only potentially aid post-disaster recovery and reconstruction, but also can contribute to building pre-disaster resilience.

RECONSTRUCTION ACTIVITY OFTEN IMPEDED BY UNCERTAINTY OVER RESOURCE RIGHTS

A *fifth* associated situation is of uncertainty over the rights of socio-politically invisible categories of people – seasonal migrants, pastoralists, environmental refugees. How shall such communities cope if their (previous) host community has been relocated elsewhere? This issue is important to address by governments and humanitarian agencies, since such vulnerable sections typically escape the attention of reconstruction projects in the short/medium-term phases of post-disaster recovery; and at other times, they largely remain a subject of "alternative development" groups. There is need to approach these vulnerable sections through a more formalized policy on land rights and resettlement in medium/high disaster risk contexts, especially of the kind witnessed in slow onset disasters.

Reconstruction activity implemented by humanitarian agencies has often been severely impeded by socio-legal uncertainty in each of the above situations. Types of claims to natural resources differ according to "user rights" and "decision-making rights" granted by politico-legal or traditional/communal sanctions. Systematizing the recognition of such claims – legal or traditional – is, to a large extent, a precondition for the effective reconstruction of disaster affected regions. In the absence of such rights, formal land-use and spatial planning of resettlement and reconstruction sites will often be unrealistic and discriminatory, possibly fueling conflicts and abetting high-risk settlement patterns.

Through a research study conducted early in 2005, the International Institute for Sustainable Development (IISD) is examining how clarifying and systematizing resource rights could in fact be an important enabling factor for not only building capacities for post-disaster recovery, but also enabling pre-disaster resilience . According to the evidence presented by the research, "clearly defined and equitable resource rights may help to improve planning in areas vulnerable to natural disasters. They can encourage land and home owners to invest in windbreakers, better home construction and flood barriers, and provide the necessary collateral to make such investments. Finally, personal or communal ownership may help reduce the risk of environmental degradation that increases vulnerability to natural disasters" (IISD, 2005: 14).

MULTI-STAKEHOLDER, INTER-AGENCY DIALOGUE NEEDED

Given the impact that pre-disaster resilience can have on post-disaster capabilities for recovery, it will be important to further investigate this approach. Moreover, it will be crucial to initiate discussions on how resource right issues can be integrated with development policies which address land use patterns, livelihood practices, coastal zone regulations for sustainable access and control over resources, environmental sustainability and socio-economic development trends. Addressing resource rights could also have crucial implications for detailing the process of "mainstreaming" disaster risk reduction issues into development policy – an area being presently investigated by the Bureau for Crisis Prevention and Recovery (UNDP–BCPR) Global Initiative for Mainstreaming Disaster Risk Reduction.

While these global initiatives could help "mainstream" resource rights issues as a risk reduction concern over the next year/s, it will be an important first step to initiate multi-stakeholder and inter-agency dialogue on arriving at a clear understanding of how resource rights relate to disaster contexts. Some fundamental questions will have to be factored into such discussions: How effectively can post disaster recovery and reconstruction plans deal with "relocation risks" like structural exclusion? What are the kinds of provisions available for untitled people (with no formal or traditional claims) that a policy on post-disaster resettlement could look at? How will environmental refugees be dealt with before and after a disaster – can they be viewed as victims of multiple disasters and hence multiple relocation risks? Possibly such discussion will then begin to generate responses to the indomitable question posed during recent post-disaster reconstruction: "Where shall we rebuild our homes?" ●

For more information please contact UNDP-BCPR Delhi through Shefali Juneja at shefali.juneja@undp.org

Partners' reactions are welcome to further feed the debate in future issues. Please send your comments to rosec@un.org

The 2004 Indian Ocean Tsunami: One year after

An earthquake measuring 9.0 on the Richter scale struck the western coast of Sumatra, Indonesia, on 26 December 2004, triggering massive ocean waves or "tsunamis". The resulting unprecedented disaster impacted the lives of millions of people in the Indian Ocean region and, to a lesser extent, in other regions. The tsunami left more than 270,000 people dead and caused billions of dollars of damage. While many people are believed to have died in the earthquake, the main cause of death was trauma and drowning from the flux of seawater and waves pouring into coastal areas without warning. It is widely acknowledged that the death toll would have been drastically reduced if effective early warning systems had been in place in the Indian Ocean region.

Strengthening early warning systems in tsunami-prone countries

As it was urgent to mobilize efforts and resources to establish an early warning system for the Indian Ocean region, a multi-partner, multi-donor initiative called "Evaluation and Strengthening of Early Warning Systems in Countries Affected by the 26 December 2004 Tsunami" was launched in early 2005. The initiative is funded through the "UN Flash Appeal for Indian Ocean Earthquake-Tsunami 2005" with generous contributions from the European Commission for Humanitarian Aid and the Governments of Finland, Germany, Japan, Netherlands, Norway and Sweden. It is being coordinated by the UNISDR Platform for the Promotion of Early Warning (PPEW) and implemented by several international, regional, and national partners.

The initiative provides an overall integrated framework for strengthening early warning systems in the Indian Ocean, and its key elements include core system implementation, integrated risk management, public awareness and education, community-based approaches, as well as coordination and building partnerships. Several activities have already been completed and major achievements include:

1 The development of regional inter-governmental processes to support the establishment of tsunami early warning systems in the Indian Ocean;

2 Significant progress towards awareness raising and capacity building in advocacy with more engagement from the media and non-governmental organizations; and

3 Coordination of joint efforts of many key organizations in the UN and the region towards linking tsunami warning systems to other hazard warning systems and to disaster risk management.

A major highlight has been the establishment of partnerships and coordination mechanisms across a wide range of partners and donors and the fact that it provides an example of an integrated vehicle for supporting the implementation of the "Hyogo Framework for Action 2005-2015" adopted by UN Member States at the January 2005 World Conference on Disaster Reduction. This partnership approach has brought an added

... the death toll would have been drastically reduced if effective early warning systems had been in place

value to the diversity of activities and a more coherent and coordinated approach to the issue, thus extending the reach and effectiveness of inputs and resources.

PPEW provides the overall coordination of the initiative, with emphasis on the strategic overview, planning, monitoring and evaluation, facilitating partnerships, meeting donor requirements and disseminating information. PPEW also undertakes specific activities related to the mandate of the UNISDR Secretariat and the overall Hyogo Framework aim of building the resilience of people to disasters.

Partnerships and coordination have been strengthened across many UN agencies, regional and national organizations, research institutes and local communities. Partners include UNESCO, the UNESCO-Intergovernmental Oceanographic Commission (IOC), the World Meteorological Organization (WMO), the UN University Institute for Environment and Human Security (UNU-IEHS), the UN Economic and Social Commission for Asia and the Pacific (UNESCAP), the UN Environment Programme (UNEP), UNDP, the UN Office for Project Services (UNOPS), the Asian Disaster Reduction Centre (ADRC), the Asian Disaster Preparedness Centre (ADPC), the Asia-Pacific Broadcasting Union (ABU), the Centre for Research on the Epidemiology of Disasters (CRED), the All India Disaster Mitigation Institute (AIDMI) and the University of Geneva. ●

For more information, please contact ISDR Platform for the Promotion of Early Warning (PPEW) at www.unisdr.org/ppew

Progress & achievements toward strengthened Indian Ocean warning systems

Progress and achievement have been made in the implementation of the initiative. They are listed below under the key components mentioned above.

CORE SYSTEM IMPLEMENTATION

■ A *"Common Statement"* has been made by countries participating in a special session of the January 2005 World Conference on Disaster Reduction (WCDR), including those affected by the tsunami tragedy. The Statement recognizes the importance of bolstering national systems and sharing experiences on disaster relief, post-disaster rehabilitation and natural disasters. The statement also recommends that necessary regional disaster mechanisms be established and strengthened as soon as possible for all relevant natural hazards, which should include early warning systems, collaborative regional centres, and use of modern science and technology. *The full text of the Statement is available at www.unisdr.org/wcdr/intergover/official-doc/L-docs/special-session-indian-ocean.pdf*

■ *A scoping meeting* on the development of tsunami early warning systems was held in Kobe, Japan, on 22 January 2005 immediately after the WCDR. Organized by the UNISDR Secretariat and UNESCO-IOC, this ad hoc technical meeting was attended by national government representatives, UN organizations and experts to share information on activities and plans to develop tsunami early warning systems, with particular reference to Indian Ocean countries affected by the 26 December 2004 tsunami and in response to calls to develop more effective tsunami early warning systems globally. The meeting provided a venue for brief-

ings and discussions on the roadmap to establish a tsunami early warning system in the Indian Ocean.

■ *An "Interim Tsunami Advisory Information System"* has been established, involving exchange seismic data and tsunami advisory information to 26 national focal points in the Indian Ocean region receiving advisory information from Japan and Hawaii tsunami centers. This interim system was partly effective when a major earthquake occurred in Sumatra, Indonesia, on 28 March 2005.

■ *National focal points* for tsunami early warning have been designated in 26 countries in the Indian Ocean. This contributes to the enhancement of national coordination mechanisms and the strengthening of an effective regional early warning system.

■ *A regional agreement* has been reached on the general design and management of a regional early warning system for the Indian Ocean. This major achievement was the result of a series of international intergovernmental meetings convened by UNESCO-IOC in Paris (March 2005) and Mauritius (May 2005). The meetings generated necessary consensus and regional agreement on building a distributed, interconnected tsunami warning system.

■ *A policy dialogue* for high-level administrative policy makers on establishing a tsunami early warning system in the Indian Ocean was organized by the UNISDR Secretariat and Asian Disaster Reduction Center (ADRC) in February 2005 with 24 participants from 11 countries of the Indian Ocean region.

■ *Study tours for national experts* from 26 Indian Ocean countries were organized in July 2005 by UNESCO-IOC, the UNISDR Secretariat and ADRC to allow national experts to visit and observe existing tsunami early warning systems in Japan and Hawaii. The participants enhanced their knowledge and capacity to identify requirements for national tsunami warning and mitigation systems. The knowledge gained from the study tours is already being put into practice in setting up national tsunami early warning centres and providing public information products.

■ *Review and strengthening* of the Global Telecommunication System (GTS), coordinated by the World Meteorological Organization (WMO) is under way to support the exchange and distribution of Indian Ocean Tsunami Warning System alerts and related information, including for the already existing Interim Tsunami Advisory Information System. WMO expert teams carried out assessment missions in several countries to upgrade national GTS components. This will have the added long-term advantage of providing the basis for an all-hazards information exchange system in the future. More funds have been requested from donors for full implementation of the GTS.

■ *A multidisciplinary workshop* organized by WMO on the exchange of early warning and related information, including tsunami warning in the Indian Ocean, took place in Jakarta from 14 to 18 March 2005. The participants endorsed a WMO "Action Plan" and developed a technical and operational plan including immediate, short-term and longer-term actions for making GTS fully operational in all Indian Ocean countries to support tsunami early warning systems. The meeting also identified those Indian Ocean countries that need assistance for GTS upgrade.

■ Sixteen *need assessment missions* to Indian Ocean countries were organized by UNESCO-IOC, the UNISDR Secretariat, WMO and other organizations between May and September 2005, supported by multidisciplinary expert teams. The missions consulted with a wide range of parties and reviewed national capabilities for tsunami early warning and mitigation, public awareness and risk reduction needs, and technical requirements. Recommendations and brief training were delivered directly to and negotiated with national authorities and will be used to guide technical plans and national and regional strategies. The complete consolidated report was published in December 2005. *The report is available at http://ioc3.unesco.org/indotsunami/nationalassessments.htm*

■ Twenty-three *real-time sea level stations* have been deployed by UNESCO-IOC, in close coordination with the Hawaii Sea-Level Centre, to complete the upgrade of the Global Sea Level Observing System (GLOSS) network in the region. The sea-level stations deployed in countries of the Indian Ocean represent core elements of the GLOSS network, which constitutes a fundamental basis for the monitoring and detection of tsunamis in the Indian Ocean.

INTEGRATED RISK MANAGEMENT

■ A new *working group* on disaster mitigation, preparedness and response has been formed during the second meeting of the UNESCO-IOC Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning System (ICG-IOTWS), which was held in Hyderabad, India, in December 2005. The working group started a consultation process to propose recommendations to the ICG on how to integrate tsunami early warning systems in disaster management and national development processes for the next ICG meeting in August 2006.

■ To address the environmental dimensions of disasters, the UN Environment Programme (UNEP) is *coordinating a review* of environmental risk assessment methods to identify environmental factors contributing to risk in coastal areas vulnerable to tsunamis. This initiative targets the institutional capacity strengthening of environmental authorities in Indonesia, Sri Lanka and the Maldives towards the integration of environmental assessment and monitoring systems in national disaster risk reduction and early warning systems.

■ Linkages and synergies are *promoted and strengthened* between tsunami warning systems, other hazard warning systems and disaster management institutions through advocating integrated disaster risk management approaches, and promoting coordination mechanisms at regional, national and local levels.

■ *A guideline document* for the implementation of the Hyogo Framework is being developed to help national and local authorities and other stakeholders to implement the priorities for action agreed in Hyogo towards building the resilience of nations and communities to disasters. The guidelines are designed as a "getting started" package focusing on a step-by-step "how-to" with examples, case studies and lessons learned.

PUBLIC AWARENESS & EDUCATION

■ Two media-targeted *regional workshops* were jointly organized by the Asian Broadcasting Union (ABU) and the UNISDR Secretariat in June 2005 in Bangkok, Thailand, bringing broadcasters together with technical experts from the tsunami and weather warning fields to improve dialogue on and understanding of warning dissemination and public education. Further workshops are planned at national level, and broadcasters are committed to produce locally targeted public information material. Similar contacts have been developed with the European Broadcasting Union (EBU).

■ *A public awareness and education workshop* was coordinated by the UNISDR Secretariat in Bangkok in September 2005, involving participants from UN agencies, the International Federation of Red Cross and Red Crescent Societies (IFRC), national institutes, broadcasting agencies and NGOs to share experiences and devise plans to implement public awareness campaigns and identify synergies for further coordination.

■ The *development of tsunami awareness booklets*, using an old Japanese tsunami educational story "Inamura-no-hi" is under way in eight Asian countries: Bangladesh, India, Indonesia, Malaysia, Nepal, the Philippines, Singapore and Sri Lanka. Five thousand booklets for adults and children will be produced by ADRC in local languages.

■ *A perception study* is coordinated in Indonesia by ADRC to survey the level of tsunami awareness at community level, in schools and within national institutions. The study, which will build on similar studies by ADRC for Sri Lanka and the Maldives, will be carried out between December 2005 and April 2006.

■ *An information kit* entitled "Tsunami Teacher" is being finalized by the UNESCO-IOC International Tsunami Information Centre (ITIC). The information kit will provide a consolidated resource of new and existing, reliable and verified tsunami warning, response and mitigation information and training modules. It is intended for stakeholder groups affected by or responsible for mitigating tsunamis such as the media, education systems, government agencies, community groups, and the private sector. The first module will be available by mid-2006.

■ The UNESCO-IOC/ITIC has *revised and updated* its most popular educational material and additionally made them available in an easily customizable electronic format for localization by countries. They can be downloaded from the ITIC web site. The publications include "Tsunami, the Great Waves", "Tsunami Warning! Children's Book", "Tsunami Glossary" and a tsunami safety poster. *ITIC educational material are available on http://ioc3.unesco.org/itic/*

■ *The first issue of "Disaster Reduction in Asia & the Pacific – UNISDR Informs"* (this magazine) has been published by the Asian Disaster Preparedness Center (ADPC) in English (3,000 copies) with translated versions in Chinese, Bahasa Indonesia and Russian (2,000 copies each). The translated versions are part of efforts to make the newsletter accessible to larger audiences. The magazine is an important channel to disseminate news and knowledge on disaster risk reduction throughout Asia, and to recognize the wealth of expertise and knowledge on DRR in the region.

COMMUNITY-BASED APPROACHES

■ With a focus on community-based approaches, UNDP country offices in India and Sri Lanka, and the UNESCO country office in Indonesia have started *pilot initiatives* to assess community-based mechanisms for disaster preparedness and to strengthen dissemination mechanisms of early warnings to communities. In addition, the pilot initiatives will document and disseminate lessons learned and good practices to inform other community-based preparedness and early warning systems in the Indian Ocean region.

■ To inform policy for early warning and

preparedness, *an epidemiological study* of the human impact of the tsunami in Tamil Nadu, India, was carried out by Centre for Research on the Epidemiology of Disasters, Belgium (CRED) jointly with the University of Delhi and the Tamil Nadu Voluntary Health Association. The objective is to develop better preparedness and mitigation policies through collecting evidence on risk factors related to the Indian Ocean tsunami and thereby contributing to the evidence base on human impacts of disasters. *More information is available at www.cred.be/cred1/project/tsunami-intro.htm*

■ *Field studies* of disaster risk management and vulnerability assessments were carried out by UN University Institute for Environment and Human Security (UNU-IEHS) in Sri Lanka, including the development of rapid vulnerability assessment techniques for the city of Galle. In addition, support has been provided to the Sri Lankan Technical Advisory Committee on Early Warning and Disaster Preparedness, including technical assistance in policy design, planning, mapping and duplicating experiences.

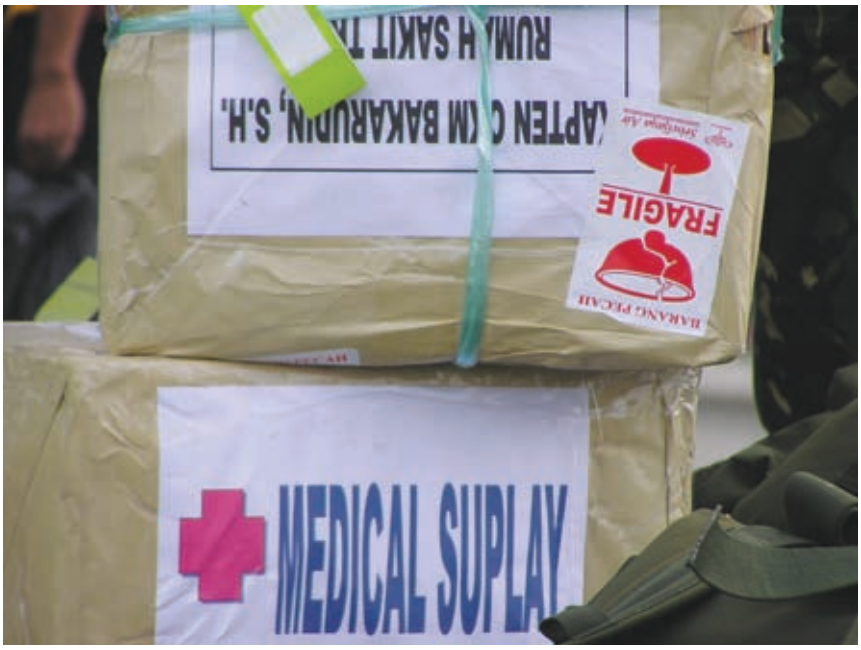
■ The Danish Government hosted *an international workshop* on "Strengthening the Resilience of Local Communities to Cope with Water-Related Natural Hazards" in Copenhagen in November 2005. In an effort to support the implementation of the Hyogo Framework, participants from disaster risk management authorities, practitioners and community-based NGOs from Bangladesh, India, Indonesia, Malaysia, Sri-Lanka and Thailand focused on identifying practical steps to ensure that community concerns are better integrated into public policies. The participants worked on developing environmentally sound and sustainable coastal zone management tools that integrate natural hazard risk reduction. Good practices were identified, suggesting ways forward and identifying potential stakeholders who would be expected to integrate these good practices into their activities.

■ *An international workshop* on the role of micro-finance in tsunami risk mitigation and recovery was coordinated by All India Disaster Mitigation Institute (AIDMI) and the UNISDR Secretariat in New Delhi in October 2005, bringing together key stakeholders in the fields of microfinance and disaster risk reduction. Participants learned about experiences of the role of micro-credit in tsunami recovery from the Philippines, Japan, Sri Lanka, Bangladesh and India. The event represented a platform for the launch of a global debate on how microfinance can reduce the impact of disasters and the potential use of it for tsunami recovery. It was the first time that the concepts of microfinance and disaster risk reduction have been addressed concurrently at conceptual and operational level.

■ UNISDR Africa is *providing technical assistance* as well as partnership fostering for the development of fishing boat owners' and farmers' insurance schemes in the Seychelles. In the aftermath of the December 2004 tsunami, the Government of the Seychelles provided direct financial support to fishing boat owners and farmers who had experienced losses. Recognizing that the provision of post-disaster compensation is neither sustainable nor economically sound, the Government is accommodating a shift from ex-post to ex-ante disaster financing. Coverage for fishing boats already exists but must be made more attractive, particularly to small boat owners, while agricultural insurance will be an entirely new product in the Seychelles.

COORDINATION & PARTNERSHIP BUILDING

■ *A "Regional Consultative Meeting* on Early Warning for the East Coast of Africa" was organized by UNISDR Africa



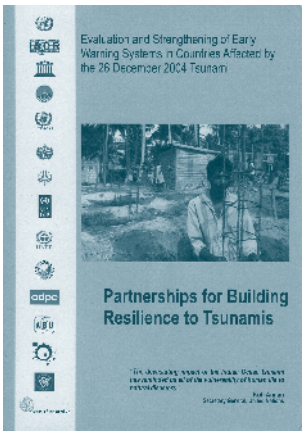
in Nairobi in October 2005 to inform participants from the region on tsunami matters, share best practices and lessons learned on early warning, and to identify early warning gaps in the eastern coast of Africa. The meeting resulted in increased knowledge of disaster risk reduction, particularly on early warning among participants, and fostered enhanced regional cooperation on early warning among the African countries on the Indian Ocean.

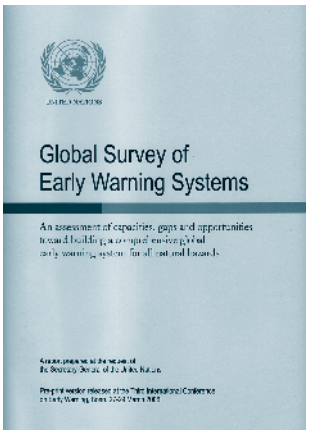
■ With support from UNISDR Africa, the Commission of the African Union (AU) *organized the "First African Ministerial Conference on Disaster Risk Reduction"* at the AU Conference Centre, Addis Ababa, Ethiopia, from 5 to 7 December 2005. The Conference built on important work to address disaster risk reduction in Africa, led by the Commission of the AU, the Secretariat of the New Partnership for Africa's Development (NEPAD) in collaboration with the African Development Bank (AfDB) and with support from the UNISDR Secretariat, UNEP, UNDP and other UN agencies. A "Programme of Action for the Implementation of the Africa Regional Strategy for Disaster Risk Reduction" was adopted.

■ UNISDR Africa is *documenting the impacts of and lessons* from the December 2004 tsunami in Africa, to result in a public documentary. Filming, news footage compilation and interviews have taken place in Kenya, the Seychelles and Tanzania, as well as remote information gathering and interviews for Somalia. Lessons to be learned will include not only actions taken during the tsunami but also disaster risk reduction and early warning measures that are being implemented. The final product is currently being edited.

■ *An initiative to document lessons* to be learned is under way, coordinated by the UNISDR Secretariat, to identify gaps and draw good practices from the tsunami disaster and to show how disaster risk reduction can reduce tsunami impact. Reports from numerous organizations and actors have been compiled for review and summary to disseminate the information.

■ *Support has been provided* to the Office of the UN Special Envoy for Tsunami Recovery by providing a liaison officer working on advocacy and public information issues as well as providing advice to the Special Envoy on areas requiring his intervention and promotion in support of the development of a tsunami early warning system and disaster risk reduction in the Indian Ocean region under the guidance of the Hyogo Framework for Action 2005-2015.





■ *A set of recommendations* to the UN Special Envoy for Tsunami Recovery was submitted jointly by WMO (World Meteorological Organization), UNESCO-IOC and the UNISDR Secretariat for activities to be undertaken in relation with early warning systems and tsunami. The recommendations urge the Special Envoy to take action in support of strengthening linkages between science and policy for disaster risk reduction, with particular focus on recovery and development. The recommendations also urge the Special Envoy to advocate at high political level to encourage effective international and regional cooperation and real-time availability and sharing of data and information policies.

■ In coordination with UNEP-Division of Early Warning and Assessment (DEWA) and the Global Resource Information Database (GRID-Europe), the UNISDR Secretariat has partnered with the University of Geneva *to update and maintain* online hazard profiles, maps and vulnerability information displayed at global, regional and national level. Specifically, online maps with information on natural hazardous events have been updated with the following time series: (i) 1979-2000 for earthquakes and tsunami (including the December 2004 Indian Ocean tsunami); (ii) 1980-2004 for volcanic activities, cyclones and floods; (iii) 1980-2001 for droughts; and (iv) 1997-2003 for wild land fires. *More information is available at www.unisdr.org/eng/country-inform/introduction.htm*

■ In cooperation with UNESCO-IOC and members of the UNISDR Asia Partnership, the UNISDR Secretariat and the UN Economic and Social Commission for Asia and the Pacific (UNESCAP) *will convene a "Regional Workshop* on Mitigation, Preparedness and Development of Tsunami Early Warning Systems" at the UN Conference Centre (UNCC) in Bangkok, Thailand, from 14 to 16 June 2006. The overall objective of the workshop is to formulate strategies to strengthen the roles of disaster risk reduction and development planning in the development of tsunami early warning systems for countries in the Indian Ocean region.

MONITORING, REPORTING & EVALUATION

■ In its overall coordinating and oversight capacity for this multi-partner and multi-donor initiative called "Evaluation and Strengthening of Early Warning Systems in Countries Affected by the 26 December 2004 Tsunami", UNISDR-PPEW *has initiated a monitoring and evaluation process* aimed at documenting accomplishments and challenges, facilitating information sharing and learning, assessing project progress and processes, and planning for future priorities.

■ *A reporting system* has been introduced to help illustrate an effective

and professional management of resources, not only by achieving results on the ground but also by reporting satisfactorily on the outcomes and the contributions made.

■ *A mid-term review process* was carried out to assess progress of the project in relation to its stated objectives and outputs, and take stock of any challenges, concerns or risks. The 1st mid-term review meeting was held on 25 November 2005 with the participation of implementing partners and donors. The 2nd mid-term review meeting took place on 7 December 2005 with UNISDR Secretariat project team members including the UNISDR Asia-Pacific regional team.

■ UNISDR-PPEW *produces quarterly reports and public information material* highlighting general information on the project, selected achievements and progress, role of implementing partners, and acknowledging contributions received from supporting donors. *All progress reports and brochures of the project are widely disseminated and are available at www.unisdr-earlywarning.org/tsunami* ●

Toward a 'Strategy for Building Resilience to Tsunamis in the Indian Ocean 2006-2008'

The UN Flash Appeal initiative to strengthen early warning systems in the Indian Ocean has provided a sound basis for the enhancement of early warning systems in countries of the region. But much more work remains to be done to build long-term sustained national capacities for resilience to tsunamis and to ensure the mainstreaming of these systems into development and disaster risk reduction strategies.

In consultation with partners and donors, a "Strategy for Building Resilience to Tsunamis in the Indian Ocean for 2006-2008" is being developed by the UNISDR Secretariat (in its capacity and responsibility to facilitate the implementation of the Hyogo Framework) to sustain a systematic comprehensive people-centred early warning system.

The Strategy aims to capitalize on achievements to date and ensure the continuation of collective inter-agency efforts and enhanced linkages and partnerships. It will continue to support the development of a core warning system, while shifting the emphasis toward building resilience to tsunamis in the context of other hazards and disaster risk reduction.

In accordance with the Hyogo Framework's goal of "Development and strengthening of institutions, mechanisms and capacities to build resilience to hazards", the Strategy identifies specific outcomes building on the ongoing tsunami early warning initiative and addressing the needs and gaps identified in the national need assessment reports as well as areas that require further enhancement on a long-term basis.

The areas of intended outcomes are:

1 *Disaster management* to support institutional capacity building in disaster management.

2 *Public awareness* to facilitate the enhancement of public awareness regarding tsunami.

3 *Education* to support the strengthening of the role of education in early warning.

4 *Community-based approaches* to support the strengthening of local communities' response capability.

5 *Early warning core system development* to support the completion of the current core system implementation plans.

6 *Tsunami risk assessment and mitigation* to facilitate the coordination of research development and risk assessment.

To sustain activities and outcomes in the region, special attention will be paid to capacity-building needs of UNISDR National Platforms and the strengthening of

coordination mechanisms across regional, national and local levels. Linkages and synergies will be emphasized to promote a comprehensive and development-oriented approach to disaster mitigation, preparedness and response to ensure that early warning system development is mainstreamed into national disaster risk reduction and development planning. This requires more engagement in and follow-up to the implementation of the Hyogo Framework, national planning and development processes, including enhanced coordination with governments, UN country teams and donors.

The Strategy provides an opportunity to further strengthen inter-agency, multi-partner and multi-sectoral collaboration towards the implementation of the Hyogo Framework and building the resilience of communities and nations to tsunamis in the Indian Ocean. ●

For more information, please contact ISDR Platform for the Promotion of Early Warning (PPEW) at www.unisdr.org/ppew

EWC III

The March '06 International Conference on Early Warning: an innovative approach

The Third International Conference on Early Warning (EWC III) was hosted by the German Government and was held in Bonn from 27 to 29 March 2006 with the slogan "From Concept to Action".

The Conference was structured in an innovative way which combined practical demonstration of proposed early warning projects around the world with discussions and debates on key policy issues through a "Priorities and Projects Forum" and a "Scientific and Technical Symposium".

The sessions of the "Priorities and Projects Forum" covered the main hazard groups (hazards of the earth, water and the air). They were introduced by presentations by experts - who outlined the main characteristics of selected early warning projects - and followed by lively discussions.

CRUCIAL NEED FOR MULTI-HAZARD APPROACH TO EARLY WARNING SYSTEMS

The Conference raised and debated critical issues relevant to the development of people-centred early warning systems with specific emphasis on risk knowledge, monitoring and warning services, dissemination and communication, and response capability. Overarching issues consistently emerged during the Project Forum, including the crucial need to favour a multi-hazard approach to early warning systems, the need for involvement and empowerment of local communities as well as the importance of having effective legal frameworks in place, stressing the role of local authorities in early warning, mainstreaming disaster risk reduction into development and poverty reduction strategies and facilitating an overall coordination of international systems such as the proposed global early warning system and national systems.

The "Scientific and Technical Symposium" highlighted the continuous progress made on early warning, with a particular emphasis on latest research results and approaches in early warning worldwide, ranging from technical novelties such as in the field of earth observation to new approaches focusing on social sciences and local early warning practices. Contributions to the Symposium were structured in three sessions which respectively underlined the importance of multi-hazard early warning systems in the context of their sustainability, addressed the impact of mega-events such as the tsunami in the December 2004 Indian Ocean, and other potential sudden onset events as well as creeping and silent events that, even though less publicized, have a devastating impact at local level. Crucial aspects such as community involvement, communication, legal and policy issues, cost-benefit and other issues that make an early warning system successful and sustainable when executed properly, were also addressed.

KEY OUTCOMES

The Conference generated three key documents intended to serve as reference tools for practitioners and policy makers in the field of early warning. They include:

1 *"Developing Early Warning Systems: A Key Checklist"* that provides governments and communities with key elements and requirements to implement effective people-centred early warning systems. This document, which is structured around the four key elements of early warning, aims at being a simple checklist of key elements and actions that national governments or community organizations can refer to when developing new early warning systems, evaluating existing arrangements or simply checking that crucial procedures are in place. The checklist is not intended to be a comprehensive design manual, but instead a practical, non-technical reference tool to ensure that the major elements of a good early warning system are in place.

2 *"A Compendium of Early Warning Projects"*. This is the result of a call for project proposals and the project-oriented approach chosen for the conference. The Compendium contains over 100 individual projects focusing on early warning and represents a rich vein of initiatives, expertise and capacity to secure early warning systems which can save lives and protect livelihoods throughout the world. The proposals cover all major natural hazard types across a diverse array of geographic regions, and span from technical systems

through to community-based action on early warning. Many of the initiatives contained in the Compendium are brand new, while others are adaptations of existing projects. Submitting organizations include government bodies, non-governmental organizations, scientific institutions and private companies. All project proposals have been accompanied by a written endorsement from an appropriate government department or international authority. To help ensure that projects are of suitable standard, a quality control process was managed by the UNISDR Platform for the Promotion of Early Warning (PPEW). This included a screening process to ensure that proposals meet the basic requirements of relevance and completeness, followed by a review and assessment of proposals against submission guidelines by expert reviewers. The Compendium was circulated to all conference participants to promote interest in new early warning projects and to encourage donor incentives for funding purposes.

3 *A "Global Survey of Early Warning Systems"* which provides an assessment of capacities, gaps and opportunities toward building a comprehensive global early warning system for all natural hazards. ●

The above three documents are available at www.unisdr-earlywarning.org and www.ewc3.org

EWC III

Events organized during the March '06 Third International Conference on Early Warning

A SIDE EVENT ON TSUNAMI EARLY WARNING IN THE INDIAN OCEAN

... was organized by UNISDR-PPEW, UNESCO-IOC, CRED (Centre for Research on the Epidemiology of Disasters), UNU (United Nations University), the Meteorological Department of Sri Lanka, and a Tsunami research expert who highlighted the progress towards strengthening tsunami early warning systems in the Indian Ocean. The event provided a forum for information exchange regarding the implementation of activities and delivery of results at regional, national and local levels. The participants discussed future prospects for partnership towards building resilience to tsunamis in the Indian Ocean region.

A ROUNDTABLE ON INDIAN OCEAN TSUNAMI WARNING AND RESPONSE SYSTEMS

... was convened by UNESCO-IOC and the UNISDR Secretariat on 27 March 2006 in the margins of EWC III in the presence of President Bill Clinton, the UN Special Envoy for Tsunami Recovery. The Roundtable brought together key players, including Governments from the Indian Ocean region, donor countries and technical agencies, to take stock of ongoing efforts and progress, and to discuss what needs to be done to make an end-to-end early warning system operational without delay. On the occasion of the Roundtable, UNISDR System partners formed a Consortium to assist initially up to 10 Governments with technical assistance to develop plans for an accelerated implementation of seven core components of a national tsunami early warning system. The Consortium partners include UNESCO-IOC, WMO, UNOCHA, IFRC, UNDP, UNEP and the World Bank. The Consortium is being coordinated by the UNISDR Platform for the Promotion of Early Warning (PPEW)

EXPERT FROM PACIFIC REGION WINS MUNICH-RE FOUNDATION EARLY WARNING PRIZE

The first ever Munich-Re Foundation Early Warning Prize has been awarded to a project called "An Early Warning Communication System for the Kingdom of Tonga". *For more information, please visit www.ewc3.org*

Mr Maliu Takai (left), deputy director of the National Disaster Management Office, Kingdom of Tonga, receives the award from Mr Thomas Loster (right), chairman of Munich Re Foundation. Photo: DKKV/M. Malsch.

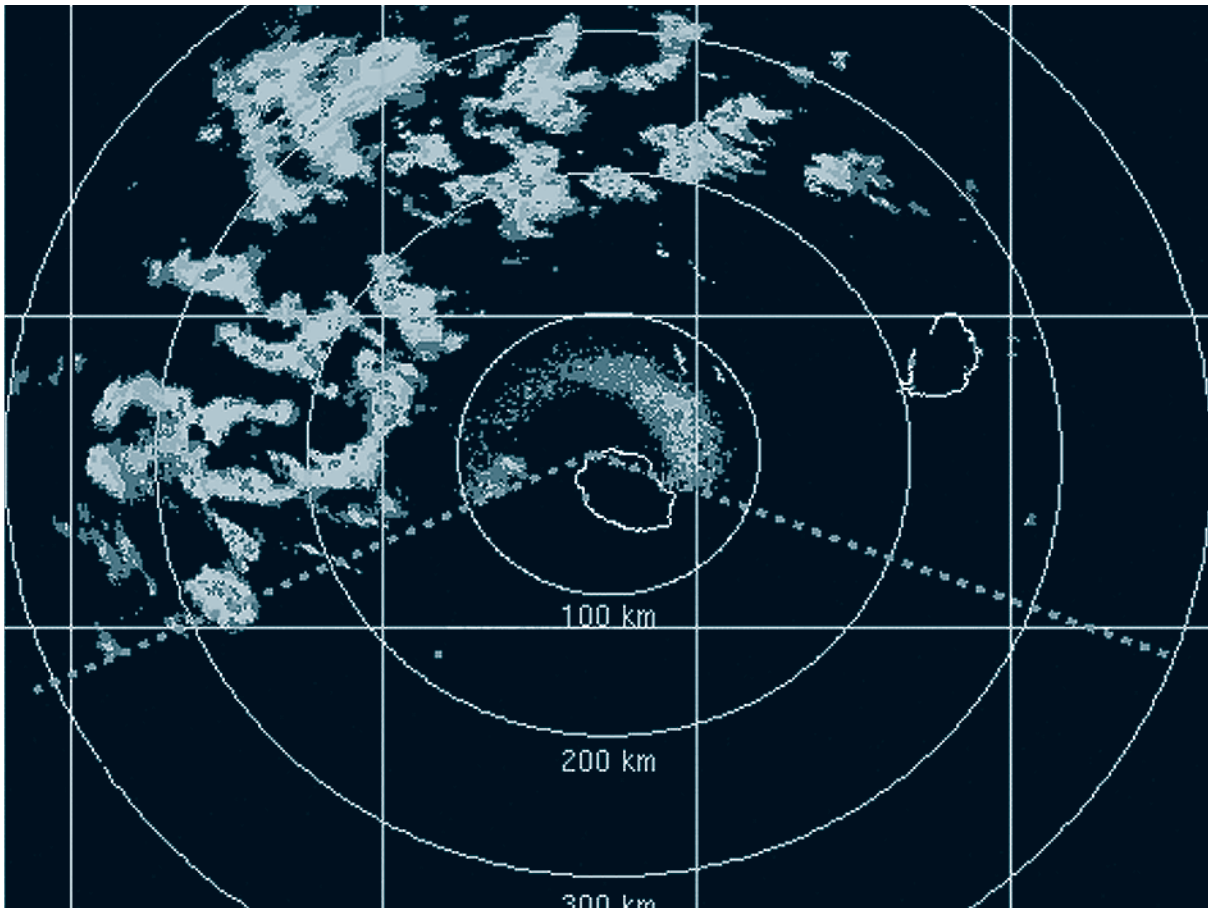
Global Consortium: strengthening national capacities for early warning systems in the Indian Ocean

While satisfactory progress is being made to build the regional infrastructure for the Indian Ocean Tsunami Warning System (IOTWS), 20 out of the 29 countries participating in the system are yet to develop their own national plans for a tsunami early warning and response systems. Without an effective national infrastructure, tsunami warnings are unlikely to reach people at risk along coast lines. Or, in cases where warnings do reach the coast, communities and local authorities at the receiving end are unlikely to be sufficiently prepared to take the necessary actions to save lives. There is an urgent need to accelerate national efforts and better synchronize them with regional developments to bring a truly "end-to-end" system into operation.

A Global Consortium of UNISDR system partners have joined forces to offer an immediate package of advisory support to governments in the Indian Ocean region which have fallen furthest behind in developing this national capacity. This prospectus outlines the assistance on offer by these consortium partners – UNESCO-IOC, WMO, UN/OCHA, the World Bank, UNDP, UNEP and the International Federation of Red Cross and Red Crescent Societies (IFRC). The Consortium is coordinated by the UNISDR Platform for the Promotion of Early Warning (PPEW) out of Bonn, Germany, in close cooperation with UNESCO-IOC. Operational leadership will be provided by UNISDR System partners at country level.

Support will cover capacities in policy design and planning, institutional and operational infrastructure for national tsunami early warning and response systems, within the context of regional and multi-hazard warning systems. A framework covering seven core components of a national system is proposed. Under Phase I, the Consortium aims to assist up to 10 requesting governments over the next four months, in order to include these national plans in the deliberations of the next IOTWS Intergovernmental Coordination Group meeting in August 2006. Under Phase II, the Consortium will continue to offer fast-track assistance for the implementation of these plans for a further 12 months, i.e. up to August 2007. Phase II may require a concerted fund-raising effort depending on demand. ●

For more information, please contact Robert Piper, Office of the Special Envoy for Tsunami Recovery, at robert.piper@undp.org



First anniversary of the 26 December 2004 tsunami

IN INDONESIA

Commemoration for the first anniversary of the 26 December 2004 tsunami was organized in most tsunami-affected countries. Indonesia carried out a simulation exercise of national real-time early warning capacities and an evaluation of the level of local community preparedness following a year of run-up preparations which included the development of maps, evacuation guidelines and paths using satellite imageries. A training for local communities, a "training for trainers" on hazards and a workshop on ICT (Information and Communication Technology) in tsunami early warning system (TEWS) were also carried out on the occasion. Additional activities to commemorate the first year anniversary included press conferences, on-air radio broadcasts, the launch of a book on TEWS activities and a national exhibition at the National Museum in Jakarta.

IN MALAYSIA

... the Deputy Prime Minister, in his capacity of chairman of the National Disaster Relief Committee, has officially proclaimed 26 December as "National Disaster Awareness Day". A dinner was organized by the National Security Division in Kuala Lumpur with representatives from government agencies, NGOs and private companies who had contributed to responding to disasters at domestic and international level. Over 930 government officials, NGOs and individual citizens were awarded a Certificate of Appreciation by the government. Force of Nature, an organization established by the Malaysian Government to generate programmes on disaster awareness among Malaysians, launched a one-week exhibition on disaster management in Damansara, Kuala Lumpur.

IN THAILAND

... the Royal Thai Government proclaimed 26 December as "National Disaster Prevention Day" and called on relevant national actors to produce and conduct a wide range of disaster reduction related activities every year. The Royal Thai Government also organized a major ceremony entitled "One Year in Memory of Tsunami", to commemorate the first anniversary of the 2004 Indian Ocean tsunami. The ceremony took place in the tsunami-affected areas of Phuket, Phang-nga, Krabi and Trang, and included a Tsunami Victims Memorial Service, a Tsunami Memorial Foundation Stone Laying Ceremony at Haad Lek Beach, Khao Lak-Lam Roo National Park, and an Interfaith Memorial Services in Bang Niang Beach, Phang-nga. Relatives of tsunami victims, those injured, and Thai volunteers attended the events. Tilly Smith, the young British girl who saved lives in Southern Thailand by prompting the evacuation of the beach at the time of the tsunami, was also invited at the ceremony, together with Patiwat, a young tsunami survivor from Indonesia, to read poems in commemoration of those killed at the Thai resort of Phang-nga. Praised as "Angel of the Beach", Tilly urged children to learn more about natural disasters, vulnerability assessment and mapping to protect themselves and their communities against the deadly impact of disasters.

For more information, please contact isdr-bkk@un.org

Regional Tsunami Trust Fund for Indian Ocean, Southeast Asia

UNESCAP established in late 2005 a regional multi-donor voluntary trust fund for Early Warning System (EWS) arrangements for the Indian Ocean and Southeast Asia (referred to as the "Regional Tsunami Trust Fund"). This Trust Fund is a contribution towards the overall UN response to establishing effective multi-hazard EWS in the region. UNESCAP draws on its mandate as the UN regional commission for Asia and the Pacific, to promote regional cooperation and integration for effective natural disaster management, with a view to contributing to social and economic development in the region. As administrator of the Trust Fund, UNESCAP applies its expertise in regional technical cooperation and policy analysis and formulation in the areas of environmental management, information communications, space technology, and poverty reduction, to make progress on the Fund.

The Trust Fund is currently capitalized at 12.5 million US dollars through contributions from the Governments of Thailand and Sweden. Open-ended in duration, the Fund aims to build and enhance capacity for comprehensive end-to-end EWS arrangements for tsunamis and other natural hazards in accordance with the needs and interests of Indian Ocean and Southeast Asian countries. This objective stems from the recognition by UNESCAP and donors that increased awareness, knowledge, adequate skills and pro-active readiness at national, provincial and community levels are needed to address the end-to-end system components.

The Fund's capacity development focus aims to contribute to various issues, such as institutional coordination and integration of

efforts, inter-operability of system arrangements, technical know-how to operate and maintain detection and communications equipment, formulation and dissemination of warnings to relevant locations, ability to respond in a timely and proactive manner to hazards at the community levels, and planning and implementation of long-term resiliency measures to reduce vulnerabilities of the poor. Projects of the Trust Fund must clearly contribute to regional coordination, integration and cooperation while also meeting local and national needs through practical and cost-effective interventions.

To respond effectively and efficiently to regional and national needs for EWS, appropriate institutions of excellence in natural disaster management in the region will be engaged through a constructive and action-oriented partnership strategy to maintain macro-level coordination of efforts while also minimizing transaction costs and administrative delays. The Trust Fund aims to work directly with formally designated regional, sub-regional and national centres and institutes with mandates and expertise in EWS for tsunamis and/or other natural hazards. These organizations may be eligible to apply for funding by acting as clearing houses to consolidate and validate ideas from entities that respond to local preparedness and prevention needs. The Trust Fund will complement the work of other UN partners such as UNESCO-IOC, UNISDR, UNDP and UNOCHA, as well as bilateral donor funded programmes, host governments, and civil society organizations such as NGOs, universities and research centres in the region. The Trust Fund's web site contains useful policy and operational information such as grant eligibility criteria, proposal application forms and guidelines for grant proposals. *For further details, the web site can be accessed through www.unescap.org.*

Recognizing the importance but also the complexity of having an effective preparedness, prevention and response system for tsunamis and other natural hazards, UNESCAP encourages all interested parties to partner in this endeavour. UNESCAP welcomes the sharing of information on ongoing activities, challenges, and future plans on EWS efforts, for both technical information exchange purposes as well as for project implementation, as appropriate. ●

For any comments or questions on the Trust Fund, please contact Khalid Husain, UNESCAP, husain@un.org

US Indian Ocean Warning System contributes to disaster risk reduction

In response to the December 2004 tsunami, US Agency for International Development (USAID), has launched the US Indian Ocean Tsunami Warning System (IOTWS) Programme to work with international and local partners throughout the Indian Ocean region to reduce risks to natural disasters. Through this two-year 16.6 million US dollar effort, scientists and experts from the United States are sharing their technical expertise, providing guidance and helping to build early warning system capacity in the Indian Ocean region.

The US Programme is providing technical assistance using an "end-to-end" approach that addresses all levels of early warning capabilities from community-level disaster readiness to national and regional-level tsunami and earthquake detection and warning communications systems. This multi-hazard approach strengthens the capabilities in the Indian Ocean to respond not only to tsunamis but also to other serious coastal hazards such as cyclones, sea swells, and floods as well as earthquakes.

At the regional level, the US IOTWS Programme is providing assistance through UNESCO's Intergovernmental Oceanographic Commission (IOC), to overall design of the warning system, upgrades to the communications systems, development of common standards and protocols, and building capacity to detect warnings. For example, team members from the US Geological Survey (USGS) conducted hands-on paleo-tsunami training for Sri Lankan, Indonesian, and Thai geologists The participants focused on identifying the special settings where tsunamis leave lasting landforms and deposits to apply these techniques around the Indian Ocean.

Sri Lankan geologists use entrenching tools to unearth signs of unusually large tsunamis near Maullon, Chile.

Until the IOTWS is fully established, the US National Oceanic and Atmospheric Administration (NOAA)-operated Pacific Tsunami Warning Center (PTWC) in Hawaii continues to monitor earthquake and tsunami activities for the Indian Ocean on a 24/7 basis and provides bulletins to national focal points for major events. PTWC, in concert with the National Earthquake Information Center (NEIC) of the USGS, provides critical information for both real emergencies - such as the October 2005 earthquake in Pakistan - and numerous cases where "no threat" is reported.

The Programme team members have initiated several national and local-level preparedness and response activities that will serve as pilot demonstrations that can then be replicated throughout the region. At national level, the US Department of Agriculture's Forest Service (USDA/FS) is partnering with the Government of Sri Lanka to develop an Incident Command System (ICS) that creates an organizational structure and system of procedures to effectively manage natural disasters. ICS is an all-hazards approach used to rapidly establish clear and effective command and coordination authority in handling emergency situations. ICS has been used successfully for years in the USA and India, and will be adapted to other countries in the region to organize the functions of a disaster management team, so that every aspect of an incident response is addressed.

Memorandum of Agreement signing ceremony between Thailand's National Disaster Warning Center and USAID's Regional Development Mission of Asia on 24 March 2006 in Nonthaburi, Thailand

The US Programme team is also working closely with national disaster agencies to establish warning notification systems. For example, USAID has recently signed a Memorandum of Agreement with Thailand's National Disaster Warning Center (NDWC) where team members from USDA/FS and the NOAA will help develop a Tsunami Alert Rapid Notification System (TARNS) for Thailand. The TARNS initiative will help NDWC develop and implement a "master plan" to adopt the right technologies and procedures to deliver both disaster warnings and "all clear" alerts quickly and efficiently, and will involve nationwide simulation exercises. It is expected that Thailand's experience with TARNS will serve as an important model for other countries in the Indian Ocean region.

In addition to helping countries develop effective tools to alert and warn of impending disasters, it is equally important to strengthen the preparedness of every community in its ability to respond to dangers. To address this need, US IOTWS programme team members from NOAA, the University of Rhode Island and USAID are developing a coastal community resiliency (CCR) programme. This programme will promote coastal community resilience through partnerships with national government ministries, academia, NGOs and the private sector to ensure long-term sustainability of community preparedness initiatives. USAID and NOAA will expand on existing local preparedness efforts from the US and Asia alike to establish common benchmarks and guidelines that can be applied region-wide to promote resilience to tsunamis and other coastal hazards, as well as economic and social resilience. The programme will focus primarily on urban, rural and tourism-based coastal communities in the Indian Ocean region. By the end of Financial Year 2006, USAID anticipates partnership trainings will have involved about 100 coastal communities in the five focus countries.

The US IOTWS Programme understands the importance of effectively coordinating with all partners in the region to avoid duplication of efforts and to maximize limited resources. The Programme has held regional workshops with donor organizations and continues to actively engage with national and local partners to reach its goal of developing an end-to-end warning system that will protect communities from natural disasters in the Indian Ocean region. ●

For more information on the US IOTWS Programme, please visit www.iotws.org or contact Orestes Anastasia, USAID Regional Development Mission, oanastasia@usaid.gov

A separate Programme Integrator office for the IOTWS maintains a library on all aspects of warning systems, disaster preparedness and related topics. Please contact Alan White, alan.white@ttemi.com

UNESCAP receives funding from Republic of Korea for disaster preparedness

The Government of the Republic of Korea has provided the UNESCAP with a 1 million USD contribution for technical cooperation in tsunami-affected countries. On 9 September 2005, Mr Kim Hak-Su, the executive secretary of UNESCAP, and His Excellency Mr Yoon Jee-Joon, ambassador of the Republic of Korea in Thailand, presided over a ceremony at UNESCAP Headquarters in Bangkok in recognition of this important contribution to the work of the UN's regional arm in Asia and the Pacific in support of tsunami-affected countries. UNESCAP will use this contribution to implement regional projects as part of the UN's response to the Indian Ocean tsunami. The projects will focus on improving the coordination and effectiveness of regional practices and policies, and integrating regional disaster preparedness and management into public policy and national systems in the Asia-Pacific region. In addition, they will facilitate the exchange of experiences and good practices within the region on areas such as education and awareness programmes, as well as mitigation strategies and pilot programmes for populations affected by the tsunami. ●

For further information please contact unisbkk.unescap@un.org

UNDP regional programme for sustainable recovery & risk reduction (2005–2006)

A UNDP "Regional Programme on Capacity Building for Sustainable Recovery and Risk Reduction in Tsunami-Affected Countries (2005–2006)" was initiated by Bureau for Crisis Prevention and Recovery (UNDP-BCPR) in response to the needs of tsunami-affected countries for greater coherence in regional recovery efforts and risk reduction. The programme is based at UNDP's Regional Centre in Bangkok and supported by the BCPR Delhi team. Its main outcome is to increase the capacity of countries affected by the Indian Ocean Tsunami in undertaking post-disaster recovery and risk reduction initiatives in India, Sri Lanka, the Maldives, Thailand and Indonesia. The programme combines both regional and in-country interventions which have been identified in support of UNDP country offices' efforts towards strengthening national recovery programming.

This combination of a regional and in-country focus ensures a coherent regional approach to UNDP's post-tsunami recovery initiatives, and also allows the programme to respond to the emerging needs and demands of country offices. Three strategic areas of support have been identified for this regional programme to achieve its intended outcomes: (1) *an Information Management component* that aims to strengthen recovery and beneficiary tracking, increase capacity for analyzing disaster trends and their application in decision-makings, and strengthen UNDP's in-house recovery coordination function for the countries involved in the programme; (2) *a Learning and Training component* under which projects are developed to train specialists to develop surge capacities for early recovery and risk reduction - including the development of contingency and recovery plans, identify and implement regional and national frameworks for training in disaster risk reduction, and train recovery actors in recovery and risk reduction through ongoing development activities; and (3) *a third component which deals with the setting up of Early Warning Systems* through which the programme will attempt to strengthen stakeholders' efforts for end-to-end Early Warning Systems (EWS) at local level. This will include the development of comprehensive multi-hazard risk patterns in support of local-level EWS, the application of risk assessment results to recovery and EWS development, policy dialogue to incorporate EWS in legal frameworks through regulatory policies, and the definition of institutional responsibilities.

The UNISDR is involved in the initiatives for Thailand as the end-to-end EW project has been integrated as an essential component of the strategic national action plan that the Royal Thai Government is currently developing in the context of Hyogo Framework implementation, with ADPC (Asian Disaster Preparedness Centre) as the implementing partner. ●

For more information, please contact Sanny Jegillos, UNDP Regional Programme for Sustainable Recovery and Disaster Reduction at sanny.jegillos@undp.org or visit www.regionalcentrebangkok.undp.or.th/practices/cpr/rpcb

Former US President Clinton's address to the UN Economic & Social Council in New York, July 2005

…"On the need for disaster prevention and mitigation, while much of the physical destruction in this massive tsunami was unavoidable, clearly the human toll would have been lower if there had been adequate early warning and other prevention strategies in place. From Banda Aceh, we have evidence of building codes, for example, as many reinforced concrete buildings remained intact, while others were swept away. Vegetation buffers appear to have made a significant difference in both Indonesia and in Sri Lanka, where mangroves in particular seem to have diluted the impact of waves on the coastline. Preparedness is likely to have been a key factor in contrasting human tolls in the coastal Indian communities in the Cuddalore district of Tamil Nadu, between some villages that had recently undertaken training exercises under UN Development Programme-sponsored efforts and others that had not. And of course most of us have now heard about the enterprising British School girl, Tilly Smith, who had learned about tsunamis in her class a few weeks before going on holiday in Thailand, recognized the warning signs, and saved, reportedly, a hundred people who were on the beach. If early warning made a difference in Thailand, 310 miles from the epicenter, it is also clear that we could have done better in Somalia, almost 3,000 miles from the epicenter.

Less than a month after the tsunami struck, 168 countries gathered to draw up the Hyogo Framework for Action, continuing the work started in 1994 at the Yokohama disaster reduction conference. This Hyogo Framework sets out strategic goals, priorities for action, and agreed steps for implementation for governments and other stakeholders. I have only one point to make about this. We cannot let this year pass without some real progress on disaster risk reduction. So I urge the members of this Council to systematically implement the Hyogo Plan of Action and specifically to include disaster risk reduction policies and practices in the recovery efforts so as not to reinstate the old vulnerabilities: to institute disaster risk awareness education in school curricula, to support local programs to assess risk, to raise awareness of vulnerability, and to close the gaps in capacity necessary to address those risks, and to complete the early warning systems on a sound and sustainable technical footing, well-integrated with other warning systems, such as those for tropical cyclones.

2005 is a key year for the risk reduction agenda. I have complete confidence that we will never have the tourist economies that were devastated in the Maldives and the coast of Thailand fully recovered until not only each country has an early warning system but there is an integrated, South Asian coordinated early warning system that encompasses all these nations. I actually believe that because of the visibility they acquired, there is an enormous potential for increased tourism in Sri Lanka and Indonesia, for example, as a result of what has happened. None of it will happen unless we have a good early warning system and it all works together. The countries have been quite good about agreeing to work together and set up compatible technologies, but we need to finish. Everybody has said the right things but it is very, very important to get this done and to do it now."…

For more information, please contact Robert Piper, Special Envoy's Office at robert.piper@undp.org

Tsunami-related UNESCO activities in Indonesia

Following the December 2004 Indian Ocean tsunami, UNESCO Jakarta is assisting the Government of Indonesia in coordinating and improving the capacity of Indonesian institutions in the prevention and response to earthquakes and tsunami disasters. To that end, as part of the Emergency Response and Transitional Recovery (ERTR) Programme of UNDP, UNESCO is collaborating with the Indonesian Agency for Meteorology and Geophysics (BMG) in the "Support to the Establishment of the Indonesian National Earthquake and Tsunami Warning System".

The project includes the integration of the existing seismic network with the installation of 25 real-time broadband seismometers in different sites across the country and a strong capacity building component including high-level technical training courses for selected personnel throughout the country, to be conducted at both the International Tsunami Information Center (ITIC) – ITSU (Tsunami Warning System in the Pacific) Training Programme, Pacific Tsunami Warning Centre (PTWC) in Hawaii and the Japan Meteorological Agency (JMA) to adapt to real-time systems. The project also includes work on tsunami-related scenarios with high tech equipment and new methods on operational procedures of tsunami early warning systems. A technical/human interface will be assessed in two pilot provinces (Nanggroe Aceh Darussalam and West Sumatra): it is intended to carry out an assessment in the two provinces where strategies in reaching out to the local society and with relevant agencies dealing with disaster response will be developed in cooperation with Institute of Technology of Bandung, the University of Syiah Kuala in Banda Aceh (Nanggroe Aceh Darussalam) and the University of Andalas in Padang (West Sumatra).

UNESCO & COMMUNITY-BASED DISASTER PREPAREDNESS

At the request of the Indonesian Ministry for Research and Technology, UNESCO Jakarta has also been working closely with 14 involved national institutions and several donor countries towards the conceptualization and implementation of a national tsunami warning system focusing on the community-based disaster risk management component of national and regional warning systems. It is only by integrating technical equipment and expertise with comprehensive community level education and awareness efforts that coastal communities have a real chance of escaping dramatic events such as the December 2004 tsunami.

Also concerned with the lack of standardized and appropriate instruments in measuring community disaster preparedness in Indonesia, UNESCO Jakarta and the Indonesian Institute of Sciences (LIPI) have developed a simple assessment tool (framework) which will measure the level of community preparedness in facing natural disasters, with emphasis in earthquake and tsunami. The related project, "Strengthening Community-based Disaster Preparedness in Indonesia", was supported by the UNISDR and UNESCO. The project includes five agreed parameters: (1) *Knowledge-Attitude-Practices;* (2) *Emergency Planning;* (3) *Policy Statement & Legal Product;* (4) *Resource Mobilization Capacity;* (5) *Warning System*. LIPI has invited many other relevant stakeholders such as the National Coordinating Board for Disaster Management and IDPs (BAKORNAS PBP), the Institute of Technology of Bandung and the Indonesian Society for Disaster Management (MPBI) to join in the preparation of the assessment tool (framework) with their specific knowledge and experience in disaster preparedness.

The experts involved recently completed the assessment framework and the tool to be used in field activities. To assess and improve it's effectiveness, the disaster preparedness assessment framework was tested in April 2006 in several pilot sites, including Padang (a large city), Bengkulu (a middle-sized city), Pulo Aceh and Samatiga (villages). Lessons learnt from the exercise will be used to improve the tool and small-scale follow-up activities focusing on improving community preparedness in these villages will be carried out.

To assess the importance of traditional knowledge in disaster preparedness, additional research activities are being carried out in the Simeuleu island of Nangroe Aceh Darussalam Province. Simeuleu Island is known to have had a limited number of victims during the 2004 Tsunami, despite its proximity to the epicentre. In addition to factors such as the intensity of tsunami in the area, the topographic feature of the settlement area (e.g. hilly mountainous) and its green belt system (e.g. mangroves) that might have helped mitigate the disaster, a century-long transmission of traditions and knowledge on earthquake and tsunami might have explained the limited casualties in Simeuleu. The research activities on Simelue Island seek to acquire better understanding of the limited casualties by recording local knowledge systems in preparing for natural disaster (especially tsunami) and, at the same time, assessing their effectiveness. The final result of the project, including the assessment tool, will be made available to the public. A web site will soon be developed to disseminate information and raise societal awareness regarding community-based disaster preparedness. ●

For more information, please contact Koen Meyers , UNESCO Jakarta, at k.meyers@unesco.org

Support for Sri Lanka from the United Nations University

The United Nations University / Environment Human Settlement (UNU/EHS) has been supporting early warning efforts in Sri Lanka by developing a tsunami early warning plan for the city of Galle, located on the southwest corner of the island. The plan incorporates the four elements proposed by UNISDR-PPEW (Platform for the Promotion of Early Warning) for an effective early warning, including the identification of high-risk areas, key agencies expected to play an active role in the routine operation of the system within the city, and measures to be included in the plan related to broadcast of warnings, as well as anticipated response issues.

RISK ASSESSMENT: WHO TO WARN FIRST?

Considering the impacts of the tsunami, as well as the fact that early warning systems basically target people to reduce fatalities and injuries, risk assessment for tsunami early warning has initially focused on identifying those people and areas most vulnerable and exposed to the hazard. The following groups and areas have been identified as highly vulnerable: women, children, people with permanent or temporary incapacity, fishermen, people who work in coastal areas, and highly dense areas such as bus stands, markets and train stations. Considering these criteria, high-risk areas have been identified for priority early warning in view of a prompt evacuation within the city of Galle (Table 1 presents a preliminary listing of such areas).

WARNING SERVICE

The government appointed the Technical Committee for Disaster Early Warning under the chairmanship of the Director-General of Meteorology and comprising several stakeholders, to issue warnings. According to the guidelines drafted by the Technical Committee, advisories and warnings are disseminated to coastal populations via the police network, as well as via the mass media (radio and television). Advisories are issued in case of earthquakes that can have the capacity to generate a tsunami and are based on information

SRI LANKA: DISTRICTS AND DIVISIONS AFFECTED BY THE DEC. 26, 2004 TSUNAMI.

Source: Department of Census and Statistics

TABLE 1: HIGH-RISK AREAS IN GALLE

Hospitals	Schools	Densely populated areas		
Mahamodera Hospital	Mahamodera School of Nursing	Public bus stand; train station	District secretariat; municipal council	Fish, fruit, vegetable markets
Central Hospital	Dadalla BTS College; C.W.W. Kannagara; Suddharma College; Vidyaloka College.	Main street; sea-side street; road to Colombo; road to Matara.	NAVY; port facilities; prison.	Neighbourhoods located by the ocean shore; 3 fishing marinas.

gathered from seismograph networks spanning the Indian Ocean region. Warnings are issued once confirmation of a tsunami has been gathered through complementary information supplied by sea-level measuring devices to be located throughout the Indian Ocean. Table 2 presents an overview of the tsunami-early warning structure. The warning service will include national, district, municipal, and local levels.

DISSEMINATION OF WARNINGS: WARNING ROUTES WITHIN THE CITY OF GALLE

The systematization of high-risk areas, possible evacuation roads, safe areas and particular rivers in the town led to the design of a strategy to warn the population at risk within the city of Galle. The strategy, to be implemented by the Police Department, includes the prioritization of risk areas into two classes: high- and medium-risk. Routes were identified to reach these areas, and the outcome has been a proposal to establish four high-priority warning routes and six medium-priority warning routes. Table 3 presents these routes and the main institutions to be warned, as well as additional information regarding evacuation procedures. The coordination of such emergency evacuation procedures should be handled by the Police and the Armed Forces. Regarding fishing boats and vessels, it is recommended that the Navy coordinate efforts to lead such vessels to the sea. Regarding larger ships, the coordination must be handled by the Captain of the Port of Galle.

ANTICIPATED RESPONSE

To complement the efforts carried out at the national level by the Technical Committee, efforts have also been carried out within the city of Galle spanning awareness campaigns via the posting of signs on roads (evacuation maps, evacuation routes and tsunami-safe areas) and the production and distribution of leaflets and posters in Tamil and Singhalese languages. The leaflets and posters have been distributed and posted in bus stands, markets and other public areas. Workshops were organized, as well as drills and special activities targeting the tourism section in a particular area of the district.

As part of the activities carried out to complete the end-to-end tsunami early warning system, a drill was carried out in October 2005 at C.W.W. Kannangara School under the coordination of UNU-EHS and Technical Committee with support from the Disaster Management Centre of Sri Lanka, UN-OCHA and local authorities. The drill highlighted the establishment of a school committee composed of older students who should guide and assist younger children in evacuating to the upper parts of the building when a warning is issued.

TABLE 2: INPUTS FOR THE WARNING SERVICE

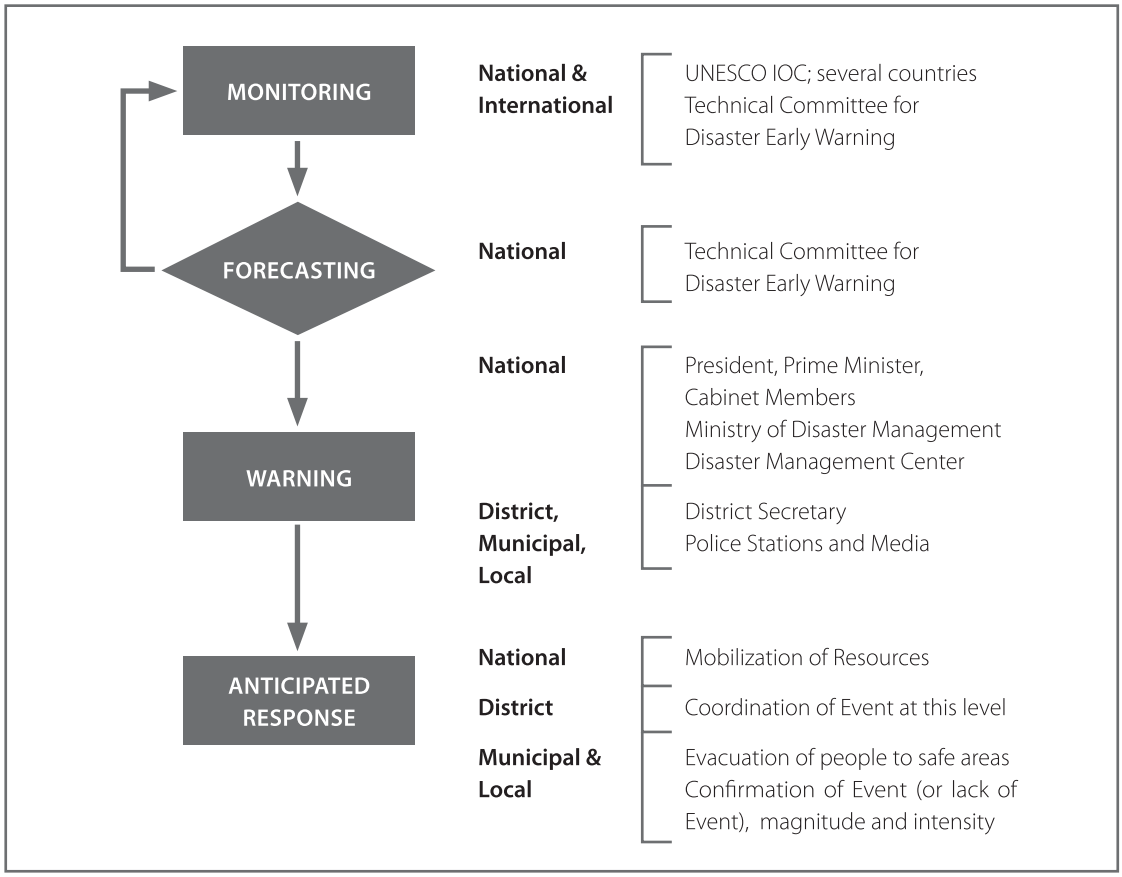


TABLE 3: PROPOSED WARNING ROUTES FOR SRI LANKA

High Priority Routes	Medium Priority Routes
1. Road to Colombo: Targeting the commercial area on this road, the School of Nursing, Mahamodera Hospital, C.W.W. Kannagara and Dadalla BTS colleges. Route ends in next village and Police will stop all incoming traffic into the city at this village.	**1. Humes-Richmond Road:** Targeting technical colleges on this road, commercial sectors, as well as housing areas. Target is to evacuate people inland through this road.
2. Road to Matara: Targeting sea-side street, fishing marinas next to fort and NAVY; NAVY, Port of Galle, Ceylon Petroleum Company, Ceylon Electric Board, Suddharma College; commercial segment on this road and Cement Factory. Police are to stop incoming traffic before entering city in the area of Unawatuna.	**2. Wakwella Road:** Targeting the commercial area, cinema, Vidyaloka College, as well as private hospitals and clinics in this area. Target is to evacuate people inland through this road.
3. Area within bus stand and train station: Targeting municipal building, the area in the Fort and the Prision. Police are to guide evacuation of people in these populated areas into highlands inland, as well as empty buses into the Fort area.	**3. Road to Karapitya:** Targeting the commercial area inland from the main street, in particular the public market.
4. Commercial area downtown: Targeting the Post Office building, the commercial area in the main street, as well as the fish and vegetable markets.	**4. Bandanarayaka Mawatha Road:** Targeting neighbourhoods behind the NAVY and the Port. Target is to evacuate people inland.
	5. Area behind the Port: Targeting neighbourhoods behind the Port area. Target is to evacuate people inland.
	6. Akuressa Road: Targeting the commercial area in this road, as well as Uswathun College and neighbourhoods in this area.

FOCUSING ON THE TOURISM SECTOR: A PUBLIC-PRIVATE PARTNERSHIP

To promote public-private partnership, efforts have been made with the tourism sector in the Unawatuna resort area. Composed of many hotels and restaurants usually attended by foreign and local tourists, the area demands measures presented in the English language.

Following an initial awareness workshop attended by owners and managers of the facilities, a local ad hoc committee was set up to coordinate efforts regarding the posting of different types of signs in roads and facilities, the development of emergency plans, the implementation of sirens, as well as coordination with both the Technical Committee and the Disaster Management Centre which is in charge of coordinating these tasks.

Experiences throughout the world point out the need for end-to-end and efficient early warning systems. The project executed in the city of Galle is one example of such an end-to-end system, where efforts have targeted the linking of elements of the chain from the national level to the local level.

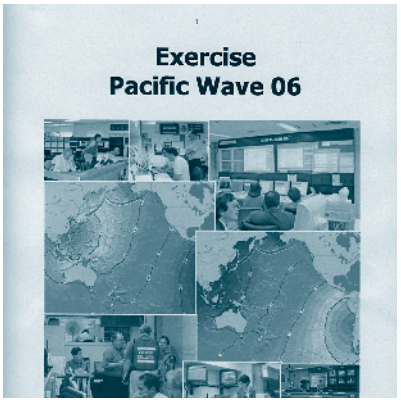
The UNISDR-PPEW support was very helpful. The project was conducted within the UN Flash Appeal for the Indian Ocean Earthquake-Tsunami 2005 programme coordinated by UN-OCHA. In addition, the project benefited from technical support provided by Srimal Samansiri of the UN-OCHA-Humanitarian Information Centre office in Galle; and from local staff of the Disaster Management Centre of Sri Lanka, as well as from UNDP. Support was also provided by staff from various institutions in Colombo and Galle, and from the principal and staff of C.W.W. Kannagara School who contributed in a significant manner to the completion of the project. ●

For more information on the project, please contact Juan Carlos Villagrán de León (UNU-EHS), villagran@ehs.unu.edu

Exercise Pacific Wave 06 manual

A simulation exercise has been carried out under the Pacific Tsunami Warning and Mitigation System. Sponsored by UNESCO's Intergovernmental Oceanographic Commission (IOC) - which established the system over 40 years ago, the exercise aimed to increase preparedness, evaluate response capabilities in each country, and improve coordination throughout the region.

The simulation was carried out in two stages, beginning with a mock tsunami warning bulletin from the Pacific Tsunami Warning Centre in Hawaii on 16 May 2006. Two scenarios, one in southern Chile and one north of the Philippines, were practiced to enable all countries to participate. The bulletin was transmitted to designated contact points and national emergency authorities responsible for tsunami response in each country. It was clearly indicated that it was a test not an actual warning. In the second stage, which was conducted the same day, government officials disseminated the message within the country to local emergency management and response authorities, simulating what would happen in a real situation.



Notifying authorities of at least one single coastal community was set as a sufficient measure for testing the end-to-end process of the entire country for the purposes of this first exercise. Most countries of the PTWS participated to review various parts of their tsunami response procedures. These include Australia, Chile, China Hong Kong, Cook Islands, Fiji, Indonesia, Korea, New Zealand, Nicaragua, Malaysia, the Philippines, Samoa and Thailand. ●

For more information, including the download of the Exercise Pacific Wave 06 Manual containing the actual messages that were issued by the PTWC, the Japan Meteorological Agency and the West Coast/Alaska Tsunami Warning Centre, please visit the ICG/PTWS web site http://ioc3.unesco.org/ptws/exercise_pacific_wave_06.htm

The final Exercise manual should be dated 4 May 2006.

Communications in tsunami-affected areas

Local and regional media in Aceh (Indonesia) have been badly hit by the December 2004 earthquake and tsunami. More than 20 commercial radio stations and print media outlets on the coast of Aceh were destroyed or seriously damaged, with staff lost in the tragedy. Even though some channels of communication have been restored, the information produced by the media still has a long way to go in reaching their capacity levels prior to the tsunami, as well as the level required for the present emergency situation. Lack of human resources and trauma amongst media practitioners make the process slow and difficult. The media sector needs substantial inputs in terms of equipment and reconstruction, as well as training and programme concept development and production of humanitarian information. In addition, there is an urgent need for sharing information among the media, government and international agencies. Moreover, the audience needs radio receivers.

REBUILDING RADIO BROADCASTING CAPACITY IN POST-TSUNAMI ACEH, INDONESIA

In January 2005, UNESCO contributed by facilitating a three-day training on radio production techniques required for programme making on the search for and reunification of family members, post-trauma and strengthening of the coverage of rescue operations

and communication of humanitarian information in the Suara Aceh FM editorial room in Banda Aceh. Furthermore, the UNESCO team provided urgently needed equipment – generators - for two of the stations presently on air such as Suara Aceh FM which is often affected by power cuts. UNESCO and International Media Support (IMS) also facilitated the provision of six tents and cots from WHO and the Government of Switzerland to be located next to the station.

The Communication and Information Unit assistance in post-tsunami Aceh focused its efforts in restoring radio broadcasting capacity, including the rebuilding of Radio Nikoya in Banda Aceh that was completely destroyed by the earthquake and tsunami. Radio Nikoya has cooperated with UNESCO since 1999, through a Danish-funded project strengthening the capacity of local radio stations in Indonesia. UNESCO's assistance is the provision of equipment (transmission equipment, broadcast equipment, field equipment) – as no equipment at all was left at the station after the tsunami event – and financial assistance for overhead cost and human resources to run the station for one year. The new station itself is a rented house that was modified to function as a radio station, with a room transformed into a studio.

The radio station was re-launched in a humble ceremony on 31 May 2005, attended by more than 100 invitees, including those from international organizations and other UN agencies. Banda Aceh Mayor Mawardi Nurdin, side by side with the director of UNESCO Jakarta office, Prof Stephen Hill, cut the ribbon to mark the official launch of the station. Since then, Radio Nikoya has gradually regained its position as one of the most popular radio stations in Banda Aceh, especially in terms of news and information. Series of training on management, technical aspects and broadcast journalism were also

conducted under this assistance to ensure that the capacity of Radio Nikoya and its staff members are restored so that it will become sustainable when the UNESCO's assistance comes to completion.

In cooperation with Indonesian Private Radio Broadcasters Association (PRSSNI), UNESCO has conducted a series of training/workshops, with participants from all the active members of PRSSNI in Aceh Province. The series of training took place in December 2005 as follows: 7–9 December for training on management where all radio station owners/managers in Aceh were invited; 14-16 December for training on technical aspects for radio station technicians; 27-29 December for training on broadcast journalism for reporters from all the stations. Modest radio equipment was also provided for all the member stations of PRRSNI in Aceh.

RESTORING COMMUNICATION CAPACITY WITH LOCAL COMMUNITIES

UNESCO Jakarta has also contributed to several ad hoc activities to restore communication capacities with local communities affected by the tsunami.

1 With funds collected by the Danish Journalists' Association as an expression of solidarity to the people of Aceh affected by the tsunami, the Association requested UNESCO Jakarta to assist in facilitating access to and distribution of radio receivers for refugees living in camps or barracks after their homes were destroyed by the tsunami. With the funds, topped up by its own funds, UNESCO managed to buy 100 units of non-battery operated emergency radio receivers that will be very useful for people to access information. The receivers were distributed in one selected refugee barrack.

2 In cooperation with Jakarta-based Nurul Fikri Foundation, UNESCO Jakarta designed a series of activities aimed at empowering local communities in Aceh Province through multimedia activities. The activities included the following: the establishment of a telecentre in the city of Banda Aceh which would be a useful source of information for communities and a place for them to learn skills on ICTs; a workshop on short film production, followed by real production of short films related to the rehabilitation process at community level. Mobile cinema activities were also planned.

3 Aceh is known as a province with rich traditional media inherited from generations to generations, such as dances, story telling to children, theatre and other art performances. However, some of these traditional media were also affected by the tsunami, with many of its practitioners killed. UNESCO has contributed to preservation efforts made to ensure that Aceh traditional media can be accessed and learned by younger generations by supporting the production of an audio-visual documentary of Aceh traditional media, in collaboration with the University of Indonesia and Centre for Communication Technology. ●

For more information, please contact UNESCO Jakarta at jakarta@unesco.org

Databases on tsunami & early warning issues

TSUNAMI EARLY WARNING INFORMATION SYSTEM (TEWIS)

TEWIS is an online web-based database that contains documentation information, contact details and activities supported by the multi-partner, multi-donor UN project called "Evaluation and Strengthening of Early Warning Systems in Countries Affected by the 26 December 2004 Tsunami". The documents include plans, reports, maps, images and budgets. Numerical data sets are limited, as most data are expected to be maintained elsewhere by the authoring organizations. The information system is divided mainly in two categories: a public one and another one accessible only through password categories for project personnel. The information system currently focuses on project suite under the Tsunami Project but shall be expanded to encompass other related projects and national-level projects. The development of TEWIS was made possible through the UN Flash Appeal for Indian Ocean Earthquake-Tsunami 2005. *TEWIS is accessible at www.unisdr-earlywarning.org/tewis*

A NEW WEB SITE FOR THE DISASTER TRACKING RECOVERY ASSISTANCE CENTRE (D-TRAC)

In conjunction with the first anniversary of the Indian Ocean tsunami, the Disaster Tracking Recovery Assistance Center (D-TRAC) of Thailand has developed a web site providing details on the status of and progress made in tsunami relief activities. *The site can be accessed at www.d-trac.org*. It includes detailed reports in English and Thai from 27 aid organizations helping in the relief phase as well as maps, village names and a list of requests for assistance from a variety of aid organizations involved in tsunami recovery. D-TRAC is an overall initiative launched in partnership with the Office of Representative Krit Sri-Fa of the Royal Thai Parliament and the District Office of Khuraburi. D-TRAC was set up o coordinate and harmonize relief action through the establishment of an effective system for the collection, organization and easy access to relevant information and data on overall tsunami relief-related activities in the province. Local and international aid agencies as well as the Provincial Representative requested the expansion of the project to other natural hazards throughout the entire province.

Detailed information can be obtained from saundra.s@d-trac.org

More general early warning initiatives

NATIONAL DISASTER WARNING CENTER ESTABLISHED IN THAILAND

The Royal Thai Government has established the National Disaster Warning Center (NDWC) to coordinate action in the development and implementation of early warning systems for tsunamis and other natural hazards at national level. The NDWC was inaugurated by Prime Minister Thaksin Shinawatra on 30 May 2005.

The major task of NDWC is to detect earthquakes and analyze seismic data to determine the possibility of a tsunami before issuing notification messages to the public and related authorities and rescuers for evacuation of people to safe places. NDWC has cooperated with various institutions in Thailand - such as the Asian Disaster Preparedness Centre (ADPC) - on information exchange and human resource development and the US Trade and Development Agency (USTDA) for technical assistance on a proposed "Disaster Warning Systems Integration and Capacity Development Project".

NDWC is also cooperating closely with the UNISDR in implementing the educational component of the Indian Ocean Tsunami Early Warning System Project. It has developed various awareness-raising and educational material on the subject. The material include "Natural Hazards Preparedness Wheels" in both Thai and English that were distributed to more than 3,000 participants in Phang Nga to provide knowledge on action plans for different types of hazard preparedness, and leaflets on natural hazard preparedness in five languages (Chinese, English, German, Korean, Swedish, Thai). NDWC also cooperated with the Asian Disaster Reduction Centre (ADRC), UNISDR and the Thai Ministry of Education in facilitating evacuation drills that were conducted by teachers and students at Tab Lamu School in Tai Muang District, Phang Nga Province, on 2 March 2006. On a more technical side, NDWC and the Department of Disaster Prevention and Mitigation produced 4,616 evacuation signages and 177 posts (to be installed in six coastal provinces) and installed 76 warning towers in six coastal provinces in December 2005. The warning towers are linked to NDWC through the IMARSAT satellite system.

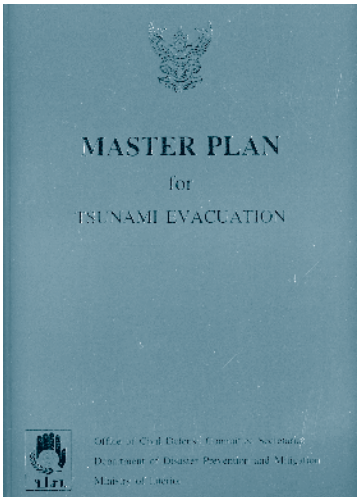
For more information, please contact Cherdsak Virapat, NDWC at cvirapat@hotmail.com

PIONEER EARLY WARNING STATION OPERATIONAL IN THAILAND, EIGHT MORE EXPECTED

Andaman News TV11 and Radio Thailand FM 90.5, both in Phuket City, now broadcast to Phang Nga, Krabi and Phuket provinces. Meanwhile, www.thaisnews.com announced on 14 March 2006 that one early warning station was functioning on Similan Island with eight more stations on their way. Speaking about the progress of the setting up of early warning stations under the Royal Thai Navy's responsibility, Royal Thai Navy Third Fleet Commander Vice-Admiral Thana Bunnark said the pioneer system at Koh Miang, Similan Island, was already operational. The Navy is set to have eight stations installed in the Andaman coastal provinces by the end of 2006. In the event of an earthquake in the sea, the station's tide gauge measures tide height and water level and reports them on computer, while officials check on the location and notify the National Disaster Warning Centre and other earthquake-related agencies in Thailand and overseas before issuing warnings for the public.

For more information, please visit www.thaisnews.com/news_detail.php

MASTER PLAN FOR TSUNAMI EVACUATION DEVELOPED IN THAILAND



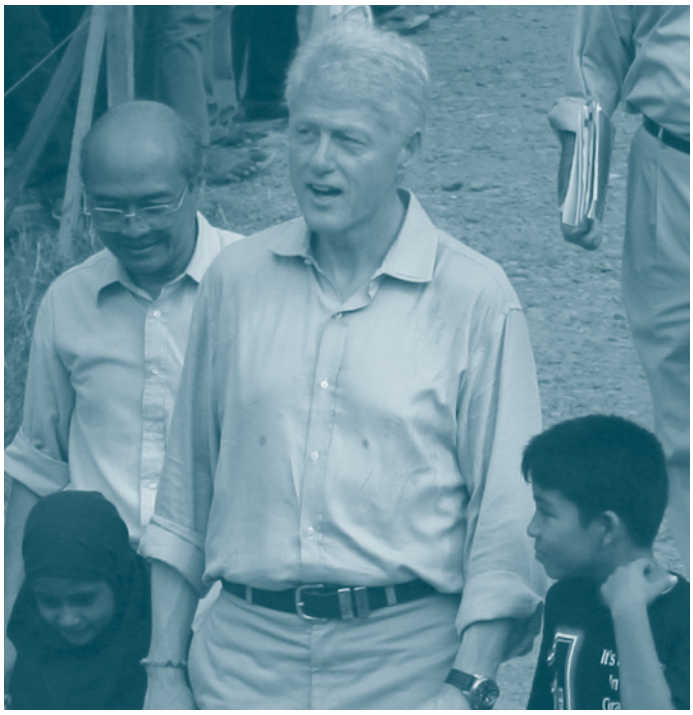
The Royal Thai Government, through the Civil Defense Committee Secretariat of the Department of Disaster Prevention and Mitigation (DDPM) in the Ministry of Interior, has developed a "Master Plan for Tsunami Evacuation" that serves as a national framework to guide evacuations in times of tsunami. The document highlights clear division of responsibilities and reporting lines (including effective communication plans for effective early warning actions) to facilitate a coordinated decision-making process for evacuation plans and limited panic impact at community level. The Master Plan is a useful educational and awareness-raising material for communities to better understand a tsunami situation, identify areas and villages most vulnerable to tsunami and high wave threats and earthquakes, and provides clear recommendations for tsunami evacuation drills and related scenario. ●

For more information, please contact DDPM at www.disaster.go.th

Hyogo Framework for Action, implementation in Asia-Pacific

"The Hyogo Framework for Action provides concrete guidelines for reducing the effects of disaster over the next decade, such as how to protect schools and hospitals and put in place early warning systems. If implemented, these measures will reduce the economic and social impacts of disasters, including the number of people killed and affected every year by natural hazards. That is why it is important that Governments implement these measures, and do so quickly."

President Bill Clinton, UN Special Envoy for Tsunami Recovery



The "Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters" is one of the main outcomes of the January 2005 World Conference on Disaster Reduction. During the Conference, 168 Governments adopted the Hyogo Framework for Action (HFA) as a 10-year plan to make the world safer from natural hazards and committed to take action to reduce disaster risk. The HFA is a global blueprint for disaster risk reduction efforts during the decade 2005-2015, whose goal is to substantially reduce disaster losses in terms of lives and social, economic and environmental assets of communities and countries. The HFA offers guiding principles, priorities for action and practical means for achieving disaster resilience to vulnerable communities.

The five priority actions outlined in the HFA to guide States, organizations and other actors at all levels in designing their approach to disaster risk reduction are:

- *Make disaster risk reduction a priority:* ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation
- *Know the risks and take action:* identify, assess and monitor disaster risks and enhance early warning
- *Build understanding and awareness:* use knowledge, innovation and education to build a culture of safety and resilience at all levels.
- *Reduce the underlying risk factors.*
- *Be prepared and be ready to act:* strengthen disaster preparedness for effective response at all levels.

Several tools have been developed by the UNISDR System to facilitate the implementation of HFA. They include:

- Strategic Directions for the UNISDR System to Assist the Implementation of the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters".
- A brochure on HFA presenting and explaining the five priority areas and the related actions that Governments and communities are encouraged to take to build their resilience to disasters.
- A video clip on disaster risk reduction, "Everybody's Business", has been produced for TVE to emphasize that disaster risk reduction should be an integral part of everyday decision making and to explain how the HFA, with its concrete guidelines, can support these activities. About 100 copies were produced in English for distribution to major partners and the media. In collaboration with UNESCO, the clip will be translated in several languages for further dissemination in 2006. *The video, "Everybody's Business", is available at www.unisdr.org/eng/media-room/media-room.htm*
- Guidelines for Implementing the Hyogo Framework: Getting Started". These guidelines have just been developed, providing concrete guidance, examples and recommendations on how to implement each of the five priority areas. ●

All documents are available on the UNISDR web site at www.unisdr.org/eng/hfa/hfa.htm

"I am pleased to congratulate the Government of Sri Lanka on putting together this comprehensive Road Map to reduce disaster risk. It demonstrates dynamic leadership, strong technical expertise and the fruits of wide consultation. Last year, the international community agreed on the Hyogo Framework for Action 2005-2015 as a plan to energetically tackle disasters and their growing impacts. The Road Map is in line with the Hyogo Framework and will be an important contribution to its implementation.

The Road Map deserves to be strongly supported by donor agencies. At the recent Third International Conference on Early Warning, in Bonn, Germany, I joined a special roundtable on how to accelerate the development of tsunami warning systems in the Indian Ocean. An initiative was announced there by a consortium of seven major agencies to offer a support package for countries in the region to help them develop their warning and risk reduction systems. The offer is coordinated by the UN International Strategy for Disaster Risk Reduction. I encourage the Government to examine the proposal to see how this package might help you achieve your Road Map objectives. Sri Lanka's future generations will be safer once the Road Map is put into action, and it has my full support."

President Bill Clinton, the UN Special Envoy for Tsunami Recovery, on the occasion of the launch of the Roadmap for Disaster Risk Management in Sri Lanka in Colombo on 11 May 2006

REVISION OF LEGISLATION

Institutional arrangements for Disaster Risk Reduction

ROADMAP FOR A SAFER SRI LANKA

A national disaster risk management framework document entitled "Roadmap for a Safer Sri Lanka" was launched in December 2005 in Colombo by the Disaster Management Centre of Sri Lanka and Ministry of Disaster Management, in collaboration with UNDP Sri Lanka. The document is a 10-year framework to contribute to lowering the risks of future disasters and to guide the management of disasters occurring in Sri Lanka. It is considered as the guiding document to achieve the "Vision of Disaster Management in Sri Lanka", including necessary programmes, projects and activities with details of required resources such as manpower, funds, equip-

Building partnerships to implement HFA in Asia-Pacific: strategic national action plans

The UNISDR Asia and Pacific has developed an innovative approach, in the framework of the Asian Partnership on Disaster Risk Reduction, to assist governments in implementing disaster risk reduction and HFA objectives at national level. Much has been done in disaster risk reduction in the Asia and Pacific region and many programmes and mechanisms have been developed at various levels through different actors. Most of them, however, have been developed on an isolated and short-term basis in response to ad hoc needs and are not part of a more comprehensive and integrated national or community programme, nor recognized by the Government. Limited financial resources have been split among various initiatives with neither long-term sustainability nor impact.

The UNISDR and members of the Asian Partnership for Disaster Reduction are seeking to assist interested Governments in mapping out the various projects and activities being implemented or planned at national and community levels, and in identifying their national priorities to define their own cohesive strategic and integrated national programmes for disaster risk reduction. The latter should involve all relevant stakeholders at national and community levels to join efforts in developing a comprehensive national strategy that responds to the needs of the country for disaster risk reduction within the overall leadership of the Government.

Such a strategic approach with harmonized policies has a number of advantages for everyone, but in particular for governments, as it: (a) enables better coordination and management of disaster risk reduction initiatives; (b) improves the efficiency of resource allocation and utilization through clearly defined objectives and activities in one integrated programme; (c) builds monitoring and evaluation for a large number of projects and related activities into one disaster risk management programme with a single executing organization within a government being accountable; (d) enables multi-donor, multi-year funding, with several implementing partners placed under single management control within relevant ministries; and (e) contributes to common understanding, knowledge, awareness and appreciation of disaster risk reduction for all involved actors among countries in the region.

The main project output is the production of a comprehensive and integrated strategic national action plan for disaster reduction that will be endorsed by all relevant stakeholders and key actors at both national and community levels and are committed to by government and development partners for implementation. At a national workshop the country's DRR priorities and implementation process are discussed and agreed upon, and obtain the full commitment and ownership of the Government and supported by partners. The overall participatory and consensus building process at the country level are as important as the outcome itself. The other main outputs expected are:

• The mainstreaming of disaster risk reduction into national policy and socio-economic development of governments and into key sectors at all levels.
• The establishment of multidisciplinary and multi-stakeholder national platforms for disaster risk reduction to facilitate the implementation of disaster risk reduction and HFA through coordinated actions amongst relevant national and community stakeholders.
• Strengthened capacity building for the empowerment and related increased resilience of the national and local communities to disasters.

For more information on the above process, please contact Joseph Chung, UNISDR Asia and Pacific, chung2@un.org

ment and a targeted timeframe to achieve the vision. The Roadmap includes seven components related to the preparation of a national policy for disaster management, reviewing and formalizing mandates, identifying capacity development needs of agencies to perform their disaster management functions. The Roadmap will also develop a vulnerability atlas for Sri Lanka to enable development planning which is sensitive to multiple hazards and associated vulnerabilities. Other components include multi-hazard early warning systems, preparedness and response plans, integrating disaster risk management (DRM) into development, community-based disaster management and public awareness, education and training. A supplement to the Roadmap, with detailed project proposals and references to the HFA was released in March 2006. As part of the legislative reform process, a new Disaster Management Act was enacted to provide the legal basis for disaster management in Sri Lanka, and a high-level National Council for Disaster Management was established to oversee all activities in this area. A separate Ministry for Disaster Management was created and a Disaster Management Centre established, as per the Act, as the lead Agency for Disaster Management. It will implement DRM in collaboration with relevant stakeholder Ministries, national and provincial-level administration, private agencies, civil society, non-government organizations and community-based organizations. *For more information, please contact UNDP Sri Lanka, ramraj.narasimhan@undp.org*

DRAFT DISASTER MANAGEMENT BILL IN INDONESIA

A draft Disaster Management Bill was submitted by the House of Representatives to the President of Indonesia on 30 December 2005, and is currently under discussions at Parliament. Three Ministers (the minister of justice and human rights, minister of public works and minister of social affairs) appointed by the President represent the Government in the discussions of the Bill. Among other relevant actions, the Bill shall set up a National Disaster Management Agency to coordinate and implement disaster management activities, including disaster risk reduction, at national level. Comments had been gathered since October 2005 on the Draft Disaster Management Bill through many consultations on "Sharing from the Public on the Substance of the Indonesian Draft Disaster Management Bill". The consultations were organized by the Indonesian Society on Disaster Management (MPBI), CARE International and UN Office for the Coordination of Humanitarian Affairs (UNOCHA) in various parts of Indonesia: Yogyakarta, Surabaya, Kupang, Mataram, Bandung, Bali, Makassar, Palu, Padang, Jambi and Samarinda. *For more information, please contact Hening Parlan, MPBI, at hening_parlan@yahoo.com*

TOWARDS A DISASTER RISK MANAGEMENT ACT IN THE PHILIPPINES

Progress was made by the Philippines Government in the area of national legislation regarding the implementation of the Hyogo Framework for Action through the development of plans to redraft the existing Disaster Management Bill into a "Philippine Disaster Risk Management Act of 2006" - through a policy and legislative group coming from the national and local governments, academic and the private sector. Proposed policies to be covered by the new bill include the development of an integrated and coordinated disaster management programme that focuses on preventing or reducing disaster risk, undertaking emergency preparedness, and initiating rapid and effective response to disasters and post-disaster recovery. The new bill places special focus on achieving excellence in civil protection through hazard reduction and disaster management, strengthening and enhancing capacities of institutions and communities for effective disaster risk management; and the adoption of universal norms and standards in humanitarian assistance. The Government of the Philippines is also promoting a strong decentralization process of specific mandates, including risk reduction which is now, under Presidential Decree 1566, devolved to local governments and becomes a primary task of local Disaster Coordinating Councils (DCCs) or Disaster Management Offices (DMOs). The Office of Civil Defence also plans to mainstream a section on "Reducing Development Disruption Through Disaster Management" into the Medium-Term Philippines Development. In line with the above new institutional decision, a Provincial Disaster Management Office (PDMO) was created in Southern Leyte Province on 12 January 2006. The PDMO will handle "pre-calamity measures in response to any disaster that might befall the province". No duplication is expected between this new body and the existing Provincial Disaster Coordinating Council (PDCC) because PDCC is activated only when a disaster occurs, whilst PDMO is an "organic office of the Governor's Office which will work as the disaster action team, looking into the search and rescue training and other preventive measures before and after a calamity. *For more information, please contact Sharon Gil, UNDP Philippines, at sharon.gil@undp.org*

"All stakeholders have a role to play in implementing the Hyogo Framework for Action. The UNISDR Secretariat is committed to its realization by supporting its partners' efforts, particularly those of the United Nations Member States, UN agencies and other members of the Inter-Agency Task Force on Disaster Reduction. The international community has to intensify the momentum generated by the World Conference on Disaster Reduction and ensure that risk reduction assumes a higher priority over the next 10 years. Now is the time to act to reduce disasters by fulfilling the pledges made in Kobe: making the world a safer place."

Salvano Briceno, Director, UNISDR Secretariat

INDIA'S EMERGING NATIONAL DISASTER MANAGEMENT FRAMEWORK

An institutional and legislative restructuring has been taking place in India in the field of disaster prevention and preparedness, aimed at reducing disaster risks in the long term. Disaster management has been shifted from the Ministry of Agriculture and Cooperation to the Ministry of Home Affairs, where a dedicated Disaster Management Division was created to deal with all issues of disaster management. Such a move was influenced by various factors, including global initiatives like the International Decade for Natural Disaster Reduction (1990-99), the 1994 Yokohama Strategy and Plan of Action and the January 2005 Hyogo Framework for Action (2005-2015), as well as mega disasters since the Latur earthquake in 1993. Similarly, States have been advised to reconstitute the Revenue and Relief Departments into Disaster Management Departments (DMDs). An elaborated legal and institutional framework for disaster management has been prescribed in the recently enacted Disaster Management Act 2005. As per the provisions of the Act, a National Disaster Management Authority (NDMA) headed by the Prime Minister has been constituted with a vice-chairman and five others as members. The NDMA is responsible for laying down policies, plans and guidelines and coordinating the enforcement and implementation of policies and plans for disaster management in the country. It is supported by a National Executive Committee (NEC) to be headed by the Union Home Secretary and consisting of Secretaries in charge of major departments at national level and the Chief of the Integrated Defence Staff. The NEC members will assist the NDMA in the discharge of its functions, and have the responsibility for implementing the policies and plans of the NDMA and ensuring the compliance of directions issued by the government and the NDMA.

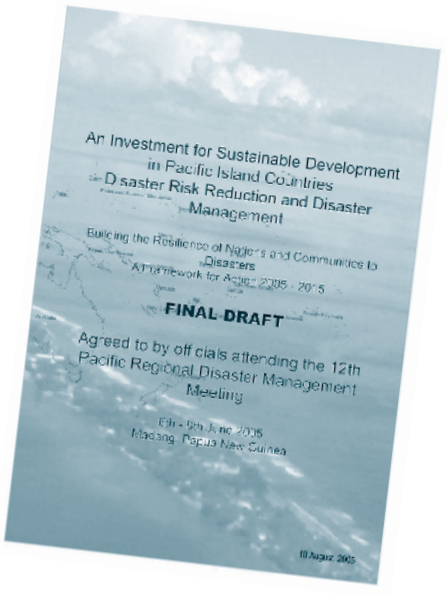
At State level, a State Disaster Management Authority (SDMA), headed by the State Chief Minister, and State Executive Committees (SECs), headed by the Chief, were created to coordinate the development and implementation of policies and plans for disaster management in the State, in accordance with guidelines laid down by the NDMA. The

SDMA also approves national and State disaster management plans prepared by State government departments and district administration, and coordinate their implementation by recommending the provision of necessary funds.

A District Disaster Management Authority (DDMA) was constituted for every district to plan, coordinate and implement disaster management at district level. Its main responsibility is to identify the areas vulnerable to disaster, prepare the district disaster management plan and initiate measures for the prevention of disasters and the mitigation of its effects through State government departments at district level and local bodies. Local authorities such as the Panchayat Raj Institutions, municipalities, district boards, cantonment boards, town planning authority, etc. are actively associated with disaster management by closely working with vulnerable communities. All construction projects undertaken by local authorities conform to standards and specifications laid down for disaster prevention and mitigation. Local authorities carry out relief, rehabilitation and reconstruction activities in affected areas, in accordance with State plans and district plans.

Finally, the Disaster Management Act has constituted two separate funds – National Disaster Response Fund and National Disaster Mitigation Fund – at national, state and district levels for comprehensively dealing with disasters in all its cycles. The manner and method of constitution of the funds, their relationships with the already existing National Calamity Relief fund and National Calamity Contingency Fund, their linkages with various mitigation schemes and programmes under the annual and five-year plans : these important issues would be addressed by the end of 2006. ●

For more information, please contact P.G. Dhar Chakrabarti, National Institute of Disaster Management, Ministry of Home Affairs, dharc@nic.in or visit www.nidm.net



Good practice & successful cases of political commitment to HFA

AT REGIONAL LEVEL

PACIFIC REGIONAL FRAMEWORK FOR HFA-BASED DISASTER RISK REDUCTION

An "Investment for Sustainable Development in Pacific Island Countries Disaster Reduction and Disaster Management - Building the Resilience of Nations and Communities to Disasters, A Framework for Action 2005-2015" has been adopted as a strategy for mainstreaming disaster risk management on an "all hazards" basis across the region to improve the capacity of individual Pacific island nations and communities to reduce their vulnerability and manage disasters when they occur.

The strategy was developed in response to a call by the "Forum of Leaders" at the Thirty Sixth Pacific Islands Forum held in Madang, Papua New Guinea, in June 2005 for regional organizations to assist member countries to develop and implement national action plans consistent with the "Pacific Regional Framework for Action for Building the Resilience of Nations and Communities to Disasters 2005–2015". It will also significantly enhance the security of civil society in Pacific nations, which is one of the four pillars of the Pacific Plan. Amongst a number of key initiatives identified under the Pacific Plan for immediate implementation is the development and implementation of policies and plans for mitigation and management of disasters over the next three years.

For more information, please contact Alan Mearns, SOPAC, alan@sopac.org

ASIAN MINISTERIAL CONFERENCE ON DISASTER REDUCTION, BEIJING, SEPTEMBER 2005

An Asian Ministerial Conference on Disaster Reduction was held in Beijing, China, from 27 to 29 September 2005 at the invitation of the Government of the People's Republic of China. The Conference provided the first regional platform for Asian countries to share and exchange best practices and lessons learned from disaster risk reduction and develop priorities for action that may be considered by individual countries for implementation as identified under the Hyogo Framework for Action (HFA). The "Beijing Action for Disaster Risk Reduction in Asia" was adopted as the main outcome document of the Conference, calling for an enhanced regional cooperation to implement the Hyogo Framework for Action in the region. The Government of India offered to host the second ministerial conference in 2007 to follow up on the advancement made in implementing the Beijing Action. *The full text of the Beijing Action is available at www.unisdr.org/asiapacific*

ASIAN CONFERENCE ON DISASTER REDUCTION 2006, SEOUL, REPUBLIC OF KOREA, MARCH 2006

An Asian Conference on Disaster Reduction (ACDR) 2006 was held in Seoul from 15 to 17 March 2006, in partnership with the Government of Japan. The Conference represented the second regional opportunity, after the adoption of the Beijing Action in September 2005, to review the progress made in promoting and implementing disaster risk reduction at national level throughout Asia along the lines of the Hyogo Framework for Action. The Conference dedicated an entire component to HFA and reaffirmed a strengthened commitment of Asian nations to develop concrete and practical mechanisms, tool, guidelines and policies to implement effectively the HFA. Among others, the Asian governments committed to facilitate the translation of the HFA document into local languages to convey its messages through to local communities and to use the "Guidelines for Implementing the Hyogo Framework: Getting Started" developed by the UNISDR Secretariat to produce their own national guidelines and strategic national action plans on disaster risk reduction in a holistic, comprehensive and integrated manner. Mainstreaming disaster risk reduction into development planning and all phases of disaster management, promoting multi-sectoral cooperation among stakeholders and enhancing timely early warning systems and efficient sharing of disaster risk information will be essential components of these national strategies. Gender-sensitive policies, community participation and involvement of NGOs throughout the cycle were also considered as critical for the success of disaster reduction. ACDR 2007, to be held in Kazakhstan, will be the next opportunity to evaluate the progress made and discuss the effective implementation of HFA throughout the Asia and Pacific region. *For more information, please contact tsunozaki@adrc.or.jp*

ASEAN LEADERS' DECLARATION IN AFTERMATH OF 2004 TSUNAMI

A "Declaration for Action, Emergency Relief, Rehabilitation, Reconstruction and Prevention in the Aftermath of the Earthquake and Tsunami Disaster of 26 December 2004" was adopted during the special ASEAN (Association of South East Asian Nations) Leaders' Meeting on the Aftermath of Earthquake and Tsunami held in Jakarta, Indonesia, on 6 January 2005 (called the "Tsunami Summit"). The Declaration stipulates three areas of work: emergency response, rehabilitation and reconstruction, and prevention and mitigation. Regarding disaster prevention and mitigation, the leaders agreed that some components of ASEAN would develop regional disaster management mechanisms, including the promotion of public education and awareness as well as community participation in disaster prevention and mitigation through community-based disaster preparedness and early response. This mandate also includes the development and promotion of national and regional human and institutional capacity, transfer of know-how, technology and scientific knowledge in building, and managing a regional early warning system and disaster management through international cooperation and partnership.

The 10 member countries of the ASEAN Committee on Disaster Management (ACDM) adopted in 2005 an ASEAN Agreement on Disaster Management and Emergency Response that makes explicit reference to the HFA. The Agreement urges member states to give priority to disaster risk reduction and cooperate closely to mainstream disaster risk reduction efforts into sustainable development policies, planning and programming at all levels (Article 3, Clauses 4 and 5). The UNISDR invited

national disaster management offices to co-operate even further at national and community levels to enhance the participation of all relevant national and local stakeholders in a mapping exercise of existing actors, activities, legal and institutional mechanisms. Such a mapping exercise would help governments identify their own national DRR priorities and formulate comprehensive strategic national action plans for DRR based on cohesiveness and partnership building among relevant key national and local players. *For more information, please contact Adelina Kamal, ASEAN/ACDM, lina@aseansec.org*

UNESCAP INITIATIVES RELATED TO DISASTER RISK REDUCTION

The UN Economic and Social Commission for Asia and the Pacific (UNESCAP) has been carrying out various initiatives in the framework of the UNISDR Asian Partnership on Disaster Risk Reduction to advance the goals of the Hyogo Framework for Action in the Asia and Pacific region. The HFA has indeed been incorporated within the "Regional Implementation Plan for Sustainable Development in Asia and the Pacific, 2006-2010" through a chapter on "Integrating Disaster Risk Management into Socioeconomic Development Policies and Planning" which aims to effectively implement HFA throughout the Asian and Pacific region. The above Regional Implementation Plan was adopted at the Fifth Ministerial Meeting on Environment and Development in Asia and the Pacific (MCED-5) held in Seoul in March 2005. Efforts have also been made to encourage UNESCAP's existing sub-regional networks on disaster risk management, such as the Typhoon Committee and the Panel on Tropical Cyclones, to integrate HFA into their respective programmes of work. In this connection, the Typhoon Committee, at its 38th Session, held in Hanoi in November 2005, "recognized the importance of linking activities of the Typhoon Committee to the global efforts on disaster reduction, especially the Hyogo Framework for Action: 2005-2015 and the Beijing Action for Disaster Risk Reduction in Asia, and decided to allocate financial resources to organize a regional workshop in 2006 under the following theme: "Integrating Activities of the Hydrology, Meteorology and 'Disaster Prevention & Preparedness' Components of the Typhoon Committee into the Related International Frameworks for Disaster Risk Management for Better Impacts and Visibility". The regional workshop is scheduled to be held either in Bangkok or Hanoi in September 2006.

Finally, UNESCAP has effectively linked possible follow-up activities of most of its ongoing projects to the implementation of HFA. Among these are the linkage of ongoing joint efforts of UNESCAP-UNDP-ECLAC (Economic Commission for Latin America

and the Caribbean) to assess the socioeconomic impacts of hydro-meteorological disasters in Asia to the implementation of the HFA priority action 1: "Ensure that disaster risk reduction is a national priority with a strong institutional basis for implementation". Among these is also the linkage of ADPC (Asian Disaster Preparedness Center)-UNESCAP efforts on the integration of community-disaster risk management into socio-economic development process to the implementation of HFA priority action 5: "Strengthen disaster preparedness for effective response". *For more information, please contact Dr Le Huu Ti, UNESCAP, ti.unescap@un.org*

AT NATIONAL LEVEL

PAKISTAN: STRENGTHENING CAPACITY, ESTABLISHING A NATIONAL DISASTER MANAGEMENT BODY

UNDP Pakistan has been pursuing the goal of sustainable human development with a particular focus on governance, livelihoods, gender, environment and crisis prevention and recovery. In 2002, UNDP assisted the government in undertaking a thorough review of the disaster management situation in the country, which led to the formulation of an integrated and multi-sectoral programme entitled "Strengthening Pakistan's Disaster Management Capacity at National and Local Levels" whose main features match the UNISDR recommendations on the subject through the Hyogo Framework for Action. In addition to the creation of institutional mechanisms and capacity building of stakeholders involved in disaster management, this programme underscores strengthening the role of communities for disaster risk reduction on a long term and sustainable basis. This initiative would require an investment of nearly 16 million US dollars out of which UNDP has committed 2.5 million US dollars from its core resources. The remaining amount has to be raised through cost sharing contributions from other donors. In the aftermath of the 8 October 2005 earthquake, the Federal Government decided to set up a National Disaster Management Authority as recommended in the aforementioned project. This setup would be established under full legislative cover and provinces have been requested to pass resolutions in support of this mechanism. The Provincial Governments are concurrently planning to set up provincial, district and local-level structures for developing synergy with the federal mechanism. *For more information, please contact m.zafar.iqbal@undp.org*

THAILAND: DEVELOPING A STRATEGIC NATIONAL ACTION PLAN

The Royal Government of Thailand, through the Ministry of Interior Department for Disaster Prevention and Mitigation (DDPM), is currently developing a strategic national action plan on disaster risk reduction along the lines of the five priority areas identified by the HFA. A National Task Force for Disaster Risk Reduction was set up to steer the plan's implementation. The project is developed in close cooperation with UNDP whose "End-To-End Early Warning System" project will be integrated as an essential component of the national strategy. The Asian Disaster Preparedness Center will be the active partner to implement the strategy at national level by the end of 2006. The UNPAF, developed by the UN Country Team Thailand in close cooperation with UNISDR Asia & Pacific, is also a valuable mechanism in implementing HFA at country level. *For more information, please contact Suporn Ratananakin, DDPM, at rsuporn@yahoo.com*

VIET NAM: DEVELOPING A NATIONAL STRATEGY AND ACTION PLAN

A national "Strategy and Action Plan" (S&AP) is currently being developed in Viet Nam towards achieving the objectives of the Hyogo Framework for Actions for the next 10 years. The S&AP has been developed around the five strategic areas of the HFA. It is expected to complement the existing comprehensive national institutional framework comprising:

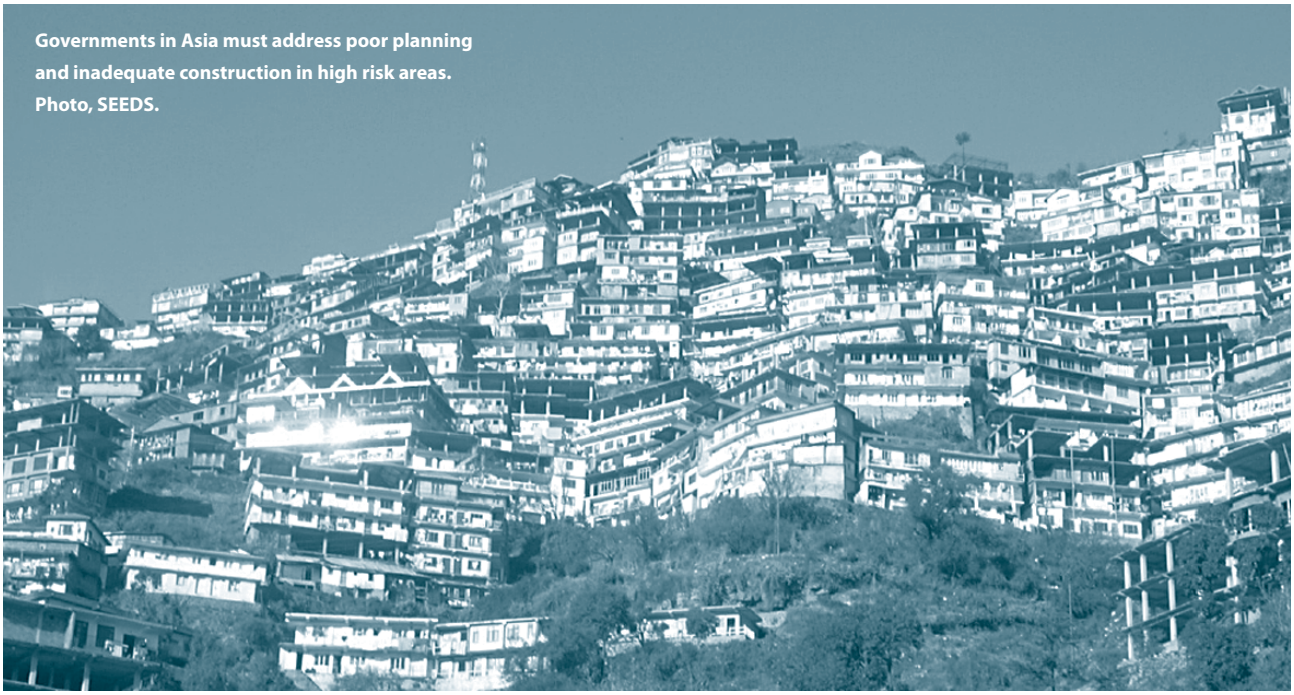
1 A multi-sectoral Central Committee for Flood and Storm Control (CCFSC) that is particularly active in disaster preparedness and response at all administrative levels of the government and all ministries. The CCFSC is chaired by the Minister of Agriculture and Rural Development, with many meetings directly chaired by the deputy prime minister.

2 A Government-Donor-NGO Natural Disaster Reduction Partnership has been established to serve as a platform to (a) facilitate coordination across sectors, between national and local levels and between the Government and International community in Disaster Risk Reduction (DRR); and (b) promote the integration of DRR in national, local and sectoral development policies and programmes. UN agencies, particularly UNDP, have been instrumental in developing the Partnership.

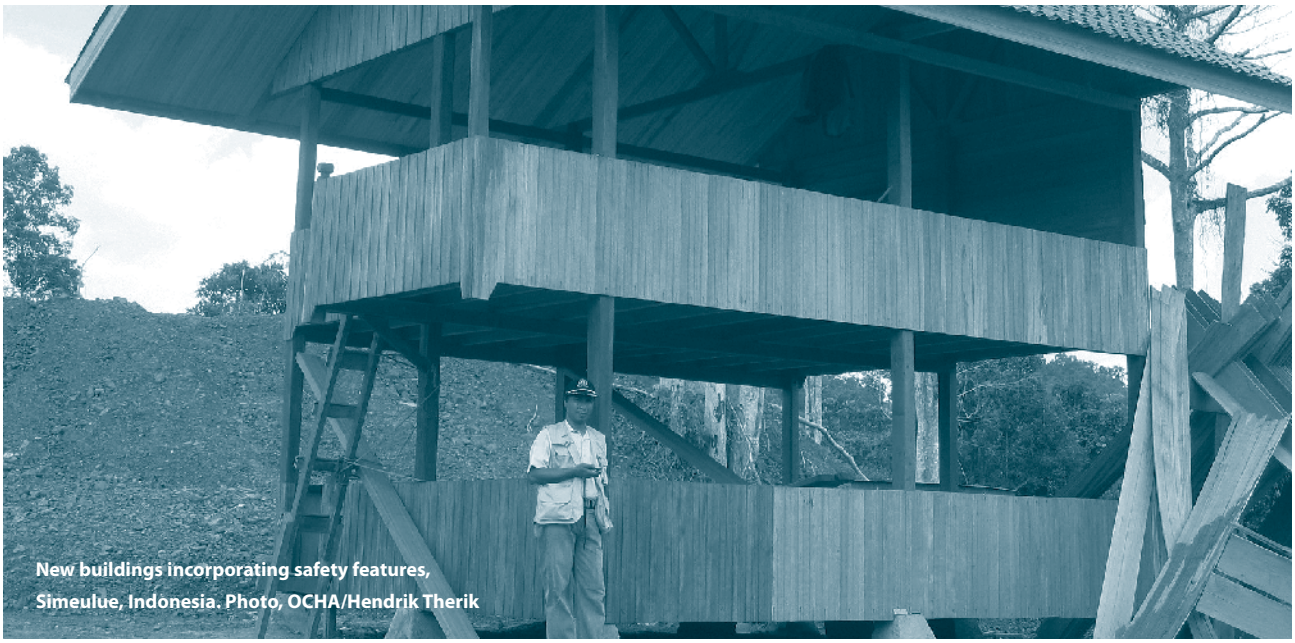
3 A Disaster Management Working Group (DMWG) consisting of international NGOs, the Secretariat of the CCFSC and some research organizations, has been actively promoting coordination, sharing of experiences and lessons in DRR, Community-Based Disaster Risk Management, gender mainstreaming and other important issues in DRR.

The S&A intends to set up a National Disaster Reduction Committee to be chaired by the deputy prime minister to cover all types of disasters and to adopt a law on disaster risk reduction to boost the implementation of the National Socioeconomic Development Strategy 2001-2010 and Plan for 2006-2010 which already sets natural disaster risk reduction as a priority. A strong decentralization process of disaster risk reduction responsibilities and resources is foreseen to the sub-national and local levels to adjust the strategy to local specificities of risk patterns. The S&AP is expected to obtain the commitment of the Government to integrate DRR in development programming and its related ownership of the Plan to facilitate its effective implementation. A strong emphasis will be placed on the issue of local community participation to make S&AP successful and sustainable in the long run, and to build hazard and risk assessment as well as early warning capabilities through improved technology and more accurate and timely data. Public awareness, including the role of the media in delivering timely early warning and communications and as an educational tool for disaster risk reduction, is also seen as a crucial component of a successful national strategy. S&AP is conceived as a process in which all key stakeholders are expected to actively participate: not only local and national actors but also key regional and international stakeholders. At this juncture, and in the light of the priorities identified above by the Government of Viet Nam to implement the HFA at national level, Viet Nam is seeking collaboration with the Asian Partnership on Disaster Reduction and other international organizations to assist the project implementation in order to foster Vietnamese communities' resilience to disasters. Viet Nam took the opportunity of the March 2006 Asian Conference on Disaster Reduction in Seoul to launch its programme. ●

For more information, please contact Dang Quang Tinh, Standing Office of the Central Committee for Flood and Storm Control at dang.quang.tinh@ccfsc.org.vn



Governments in Asia must address poor planning and inadequate construction in high risk areas. Photo, SEEDS.



New buildings incorporating safety features, Simeulue, Indonesia. Photo, OCHA/Hendrik Therik

Local communities' implementation of DRR & HFA; traditional knowledge & practices

INDONESIA

A "Community Participation in Disaster Risk Reduction Workshop" was held on 23 and 24 February 2006 in Jakarta, Indonesia, at the initiative of the Rehabilitation and Reconstruction Executing Agency for Aceh and Nyas, UNDP Indonesia and USAID. The meeting discussed the implementation of HFA and the Beijing Declaration and sought to develop an action plan for Aceh-Nyas along the lines of HFA and UNISDR's objectives. The significant contribution that local communities can make in implementing HFA at community level was strongly highlighted and recommendations were made to engage the Government's commitment and ownership of the above action plan. Discussions regarding the need to mainstream disaster risk reduction into development planning and school curricula as well as the need to set up a national coordinating mechanism for DRR were positively echoed by various partners, including the Director of Disaster Mitigation in BAKORNAS, and shall meet the objectives of the current institutional reform taking place in Indonesia, including the revision of the draft Disaster Management Bill. Concrete recommendations and proposals were made to ensure that the National Disaster Management Agency (NDMA) to be established would fill coordination and implementation roles in disaster management and disaster risk reduction. *For more information, please contact Sugeng Triutomo, Bakornas, at striutomo@hotmail.com*

PHILIPPINES

In line with the HFA, the Center for Disaster Preparedness (CDP) in the Philippines has spearheaded a project involving the government and NGOs in "Integrating Disaster Risk Management in Local Governance". A Working Group was established, whose members include representatives from the Department of Interior and Local Government and the Office of Civil Defense. The Working Group members identified good practices in disaster preparedness among local government units – the Municipality of Guagua, the Pampanga and Albay Public Safety and Emergency Management Office (in Albay Province) and NGOs. As the Office of Civil Defense has ongoing capacity development activities mainly up to the municipal/city level, the project focused on the *barangays* (villages and lowest administrative level in the Philippines). The "Integrating Disaster Risk Management in Local Governance" project produced a "Facilitators' Guide" and a "Sourcebook: Barangay Disaster Management Training Workshop". The "Facilitators' Guide" also contains excerpts from UNISDR material on updated concepts, frameworks and good practices (such as rights-based approach to governance, localization of the Millennium Development Goals, Guidelines for Elaborating a Community Risk Map). The sourcebook was subject to a participatory critique attended by 33 participants from 27 organizations. *For more information, please consult the training manual at the CDP web site at www.cdp.org.ph.*

VIET NAM

A small-scale ADB (Asian Development Bank) project entitled "Poverty and Environment Program" funded by the NGO RETA 6150 is aimed at enhancing human security in Central Viet Nam to cope with natural disasters such as floods and cyclones by developing a community-based climate change adaptation model to analyze community adaptation strategies and coping mechanisms and to test recommended interventions. In collaboration with local governments and local agencies, the NGO is implementing the project. ●

For more information, please consult the entire proposal on ADB's web site at www.adb.org/Projects/PEP/vie-edm.asp.

High-level messages recognizing HFA as the global framework for Disaster Risk Reduction

FORMER US PRESIDENT BILL CLINTON, THE UN SPECIAL ENVOY FOR TSUNAMI RECOVERY, ON THE FIRST ANNIVERSARY OF THE JANUARY 2005 HYOGO FRAMEWORK FOR DISASTER RISK REDUCTION:

"One of the lessons of the tsunami is that thousands of lives and billions of dollars could have been saved had adequate disaster reduction strategies been in place. We cannot let this year pass without real progress on disaster risk reduction which will prevent massive loss of life in the future. I urge all stakeholders -- from governments to international institutions-- to implement the Hyogo Framework for Action, and do it now.

Disaster risk awareness education needs to be incorporated into school curricula, communities should be informed about potential hazards, and new construction must adhere to safer building standards. These achievable goals were adopted by 168 governments at the World Conference on Disaster Reduction which took place in January 2005, one month after the tsunami struck the region."

At the 2005 World Summit held in September 2005 in New York, Heads of State and Government reaffirmed their commitment to achieve the goal of sustainable development and to take further action through practical international cooperation to assist developing countries to improve their resilience. They committed to "fully implement the Hyogo Declaration and the Hyogo Framework for Action 2005-2015 adopted at the World Conference on Disaster Reduction, in particular those commitments related to assistance for developing countries that are prone to natural disasters and disaster-stricken States in the transition phase towards sustainable physical, social and economic recovery, for risk reduction activities in post-disaster recovery and for rehabilitation processes".

2005 World Summit Report, A/RES/60/1 clause 55(g)

EXCERPTS FROM THE G8 RESPONSE TO THE INDIAN OCEAN DISASTER AND FUTURE ACTION ON DISASTER REDUCTION, GLENEAGLES, 2005

"The G8 has now considered the longer-term issues in the aftermath of the immediate humanitarian response to the tsunami. Communities and livelihoods now need to be rebuilt, future risk reduced and communities left more resilient to similar events in the future. We support international efforts to improve global early warning capacity as called for by the UN Secretary-General. We believe that responsibility for implementation rests with Governments and stakeholders at the local, national and regional levels with support from other partners. And we see a strong role for coordination by the UN at the international level, including through the UNESCO/Intergovernmental Oceanographic Commission for tsunami early-warning systems [….].

[….] We also recognize the important role played by the International Strategy for Disaster Reduction (ISDR), UN Development Programme, UN Environment Programme, UNICEF, OCHA, WFP, WHO, FAO and WMO. These organizations should recognize that early warning systems need to be multi-hazard and global and they will need to coordinate their activities. We welcome the offer of the German Government to host the Third International Conference on Early Warning in Bonn, Germany, in March 2006 under the auspices of the United Nations.

[…] Early warning alone will not eradicate the risk of disasters, nor will it reduce the impact of disasters which have particularly grave implications for the poor and for hard-won development gains. In order to reduce disaster risk, we will work together with the UN, World Bank and other multi-development banks and developing countries to help them tackle disaster risk reduction more effectively. We will also consider how to improve the profile of disaster risk reduction in our development and other ministries.

We believe that

• This could be addressed through better prioritization of disaster risk reduction in bilateral and multilateral development programmes and through people-centred response plans to mobilize communities in the face of hazards.

• The Hyogo Framework for Action 2005-2015 adopted at the World Conference on Disaster Reduction in January 2005 could be an important basis for our work on disaster risk reduction.

• The UN should demonstrate leadership in support of disaster reduction, including a commitment to build a more effective International Strategy for Disaster Reduction. Donors should support this process, including through the allocation of greater and flexible funding. We recognize there could be a possible role for bilateral assistance.

• The ISDR is well placed to act as an advisory mechanism of disaster risk reduction, emphasizing the need for dissemination of best practices in areas such as education and outreach and appropriate building codes and zoning."

For more information, please visit http://www.unisdr.org/eng/about_isdr/basic_docs/PostG8_Gleneagles_Tsunami.pdf

The Poem of Gampoung Pande

Assalamu' alaikum warahmatullah
With both hands raised
I welcome you
Listen and answer my greetings

Please listen to my story, oh distinguished guests
For a brief glimpse into our history
Aceh, the verandah of Mecca
Known to all nations

In Gampoung Pande the story begins
An honourable place, the King's palace
The land of Lamuri, a glorious name
Famous across the world

A prosperous land, a prosperous people
Nurtured by the King
All nations gathered there
To give birth to arts and cultures

In one era came the tsunami/earthquake
The bell of Cakrodonya clanged loudly
People ran to the top of a fortress
To save their lives from disaster

The tsunami disaster landed on us
Gampoung Pande was torn to pieces
Come friends and build this land
Now let us consider the future of our land

From Allah's disaster, we gain wisdom
We will rise up and build this land together
Do not grieve over what was lost
Let us lift our spirits together

In the eastern season, we are together
In the western season, we grow pepper
When all is agreed on
The yards and graves are pawned

Alhamdulillah, our poem has ended
There is none left for me to convey
We hope to be big-hearted
We think of our own destiny

Poem presented at a Special Performance Night of Aceh-Nias Traditional Music and Arts, during a Community Participation in Disaster Risk Reduction workshop, Jakarta February 2006.

Publications & Multimedia

"LIVING WITH RISK: DISASTER POLICY AND DECISION SUPPORT TRAINING CURRICULUM" - A COLLABORATION BETWEEN THE PACIFIC DISASTER CENTER AND THE UNITED NATIONS INTERNATIONAL STRATEGY FOR DISASTER REDUCTION.

In 2005, the international community witnessed large-scale "mega disasters" including the ramifications of the Great Sumatra Earthquake and Indian Ocean tsunami, Hurricane Katrina's impact on the Gulf Coast of the United States, and the devastating earthquake and landslides that struck South Asia.

Disasters such as these have made it particularly important for members of the international emergency management community to:

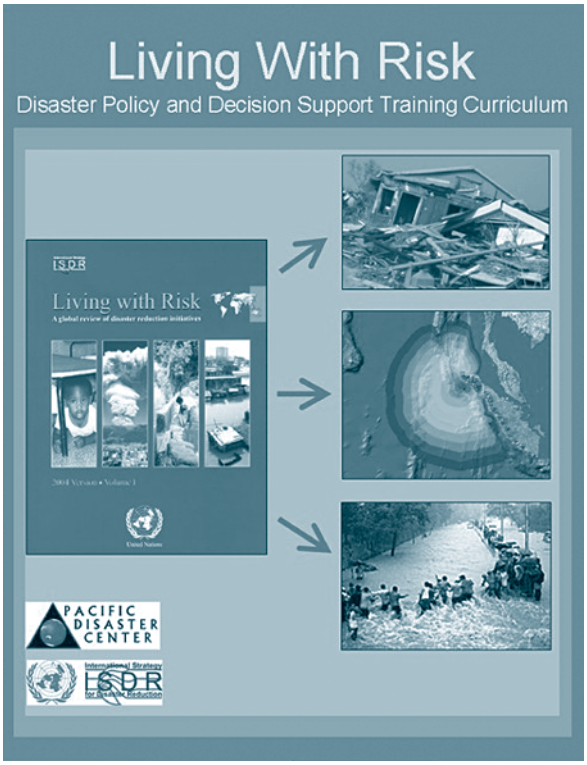
1 Increase their knowledge of natural and man-made hazards;

2 Develop a common understanding of how to effectively deal with hazard impacts; and

3 Understand the most effective means of "international common practices" for mitigation.

To address these needs, the Pacific Disaster Center (PDC) has partnered with the United Nations International Strategy for Disaster Reduction (UNISDR) to develop a multi-level training course based on UNISDR's Living with Risk publication and the International Federation of Red Cross and Red Crescent Societies' Natural Hazards compilations. Training modules have been developed for senior policy makers, senior emergency managers and national disaster management organizations, and local/national emergency management personnel.

According to the UNISDR, Living with Risk is: "…a global review of disaster reduction initiatives [that] is intended for interested people and practitioners in disaster risk management and sustainable development. It seeks to provide guidance, policy orientation and inspiration as well as a body of reference to further the study of the subject. Rather than focusing on specific experiences of disaster preparedness, response or recovery, it aims at providing a comprehensive compilation of initiatives and reference information on disaster risk reduction." ●

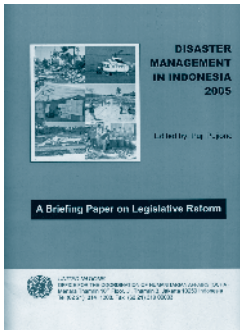


For information about Living with Risk: Disaster Policy and Decision Support Training Curriculum, please contact the Pacific Disaster Center's executive director, Dr Allen Clark, at aclark@pdc.org or the Chief Operating Officer, Ray Shirkhodai, at rays@pdc.org. More information about the Living with Risk publication is available on the UNISDR web site at www.unisdr.org/eng/about_isdr/bd-lwr-2004-eng.htm

THE INDONESIA SOCIETY FOR DISASTER MANAGEMENT (MPBI)

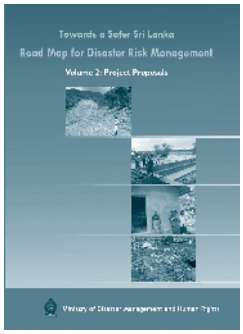
TRANSLATION INTO BAHASA OF THE HYOGO FRAMEWORK FOR ACTION (HFA) AND THE BEIJING DECLARATION.

A WHITE PAPER ON "DISASTER MANAGEMENT IN INDONESIA IN 2005 – A BRIEFING PAPER ON LEGISLATIVE REFORM" IN BAHASA AND TRANSLATED IT INTO ENGLISH, EDITED BY PUJI PUJIONO WITH UN-OCHA.



UNDP/BCPR INDIA LIBRARY

TOWARDS A SAFER SRI LANKA – A ROAD MAP FOR DISASTER RISK MANAGEMENT, DECEMBER 2005 (VOL. 1); AND APRIL 2006 (VOL.2)

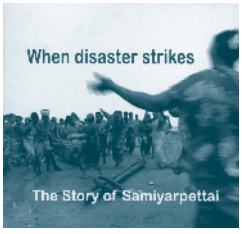


The Road Map for disaster risk management (DRM) in Sri Lanka is one of the first initiatives taken by the newly constituted Ministry of Disaster Management. The Road Map has been published by the Ministry with the support of UNDP, and in collaboration with a range of stakeholders from the government, international agencies and NGOs. It serves as a vision document which details a national framework towards achieving a safer Sri Lanka. The second volume of the Road Map incorporates details of prioritized project activities that will be implemented by multiple stakeholders over the short, medium and long term towards reducing disaster risks in Sri Lanka.

REPORT ON PEOPLE'S CONSULTATIONS ON TSUNAMI RELIEF, RECONSTRUCTION AND REHABILITATION IN SRI LANKA, DECEMBER 2005

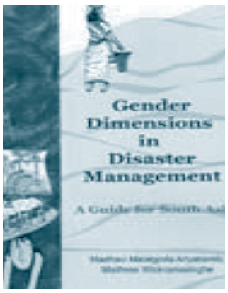
A recent attempt at "people's consultations" was conducted in 13 tsunami-affected districts of Sri Lanka by the Human Rights Commission and Colombo University in July-September 2005. The consultation sought to disseminate information on tsunami-related policy decisions to the affected communities. Simultaneously, community needs were ascertained and the findings were shared with all relevant stakeholders who have undertaken the task of rebuilding "towards a safer Sri Lanka".

WHEN DISASTER STRIKES – THE STORY OF SAMIYARPETTAI, MARCH 2006, INDIA



This film is based on community-based training approaches piloted in Samiyarpettai, a "model" village identified in Tamil Nadu under the Government of India–UNDP National Disaster Risk Management Programme. This village reported fewer deaths during the December 2004 tsunami due to the training received by the local communities in rescue and evacuation, survival skills and safety techniques, first aid, etc. The documentary was produced by UNDP India in partnership with the Government of India and the State Government of Tamil Nadu.

GENDER DIMENSIONS IN DISASTER MANAGEMENT: A GUIDE FOR SOUTH ASIA (URDU TRANSLATION) DUE IN MAY/JUNE 2006



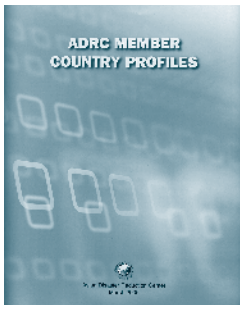
The first (English) imprint of the guide released in 2004 aimed to address the dearth of specific information on the subject of "gender issues in disasters", particularly in South Asian countries. After its release, there were discussions around translating it in different regional languages to promote wider dissemination among disaster management practitioners in Asia. The launch of the Indian imprint of the book (early 2005) identified Urdu as a potential language. The translation process has been undertaken by the Rural Development Policy Institute (RDPI) in Islamabad, in coordination with UNDP Pakistan. The Urdu imprint of the Guide is due to be launched in May/June 2006.

ASIAN DISASTER REDUCTION CENTER (ADRC) LIBRARY

INAMURA-NO-HI - PUBLICATION OF TSUNAMI AWARENESS BOOKLETS IN EIGHT ASIAN COUNTRIES

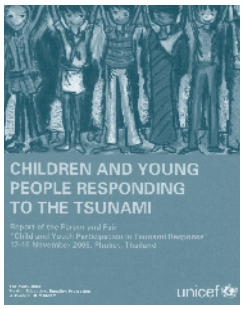
In cooperation with ADRRN (Asian Disaster Reduction and Response Network)*, ADRC has recently developed tsunami awareness booklets in 9 languages for 8 countries in Asia (Bangladesh, India, Indonesia, Malaysia, Nepal, Philippines, Singapore and Sri Lanka). In the booklets, an old Japanese tsunami educational story called Inamura-no-hi is introduced with some adaptations to the countries' contexts, as well as some tsunami evacuation information. The Inamura-no-hi story was created for elementary school children to learn from a concrete event, the gigantic tsunami that occurred on 24 December 1854 in Japan, and therefore reflects the importance of understanding and remembering lessons learned from past disasters and the need for quick judgment and action in the case of a disaster. The Asian Disaster Risk Reduction Network (ADRRN) was established in 2002 with support from UN/OCHA Kobe and the ADRC to promote coordination and collaboration among NGOs in Asian countries involved in disaster reduction & response. The ADRRN will distribute the booklets through their programmes for tsunami response, recovery or disaster reduction at community level, in cooperation with the ADRC. *The booklets can be downloaded in pdf format at www.adrc.or.jp/publications/inamura/list.html. For more information, please contact tsunozaki@adrc.org*

ADRC MEMBER COUNTRY PROFILES AND TDRM GOOD PRACTICES, ADRC



Both the "ADRC Member Country Profiles" and "TDRM-Good Practices" booklets have been edited and compiled by the Asian Disaster Reduction Center (ADRC) on the occasion of the Asian Conference on Disaster Reduction 2006 in Seoul, Republic of Korea, aimed at proposing guidelines and tools to assist disaster risk reduction in the context of the HFA in the Asian Region. The first issue of the "ADRC Member Country Profiles" booklet includes a comprehensive information on existing initiatives, projects and related budgets, coordination mechanisms, legislations, the progress made in advancing HFA, prevailing natural hazards and disaster situations, among other valuable information on the 25 ADRC countries. ADRC, in cooperation with UN-OCHA (Kobe) and other organizations/countries, has developed Total Disaster Risk Management (TDRM) as an effective and strategic approach for disaster reduction, based on many years' experiences of coping with disasters in the world and Asia in particular. To ensure the effective application of the TDRM approach, it is essential to learn lessons from the good practices around us both nationally and internationally. In the light of this, ADRC has published "TDRM Good Practices" - the first edition and the supplement version. The first issue has 28 good practices from 15 Asian countries, while the supplement version has 12 good practices from 7 Asian countries.

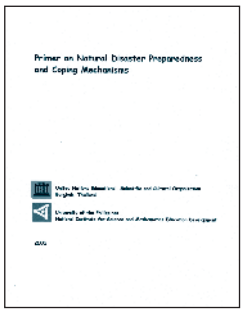
CHILDREN AND YOUNG PEOPLE RESPONDING TO THE TSUNAMI, UNICEF



The UNICEF East Asia Pacific Regional Office has carried out a review of the participation of children and young people in the response to emergency and issued a comprehensive publication entitled "Children and Young People Responding to the Tsunami". The publication is an outcome of a "Child and Youth Participation Forum and Fair" (Phuket, Thailand, 12-16 November 2005) that brought together over 20 young people from five tsunami-affected countries to share their experiences. Even though most of the report relates to the involvement of children in post-disaster situations, several sections of the publication are of high relevance to disaster risk reduction and highlights encouraging and innovative behaviours and reflections of young people in disaster situations. Among others, as part of the workshop on "Education: Promoting Children's Rights in Disaster Situations", the Thai NGO "Plan Thailand" is helping children identify issues affecting them, their families and environments, thereby raising children's disaster awareness and related emergency preparedness concerns. In northern and eastern Thailand, children have learned about forest conservation, household sanitation and silk weaving as part of local curricula and have suggested mangrove conservation, natural resources management and indigenous cultures as part of the subjects in which they want to learn more. The latter subject was raised because many of the Moken sea-faring communities, due to the passing down of traditional folk wisdom, had recognized the signs of impending tsunami. An entire workshop was dedicated to the issue of "Mitigating Risk: Children's Role in Disaster Preparedness", exploring the importance and benefit of involving children in mitigating the risks and effects of disasters. Save the Children Vietnam presented an initiative to teach children and adults how to spot the threats that disasters pose to young people and how to reduce the impending risks. Plan International presented recent research findings from tsunami-affected countries that reveal young people's strong desire to participate in disaster preparedness plans. *For more information, please contact Joachim Theis at jtheis@unicef.org*

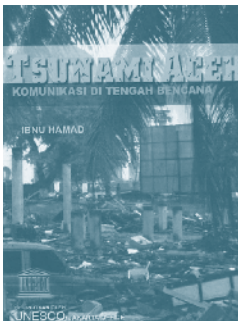
UNESCO LIBRARIES

PRIMER ON NATURAL DISASTER PREPAREDNESS AND COPING MECHANISMS, UNESCO



"Primer on Natural Disaster Preparedness and Coping Mechanisms" has been produced by the UNESCO Asia and Pacific Regional Bureau for Education, in cooperation with the Philippines National Institute for Science and Mathematics Education Development. This document focuses on earthquakes, volcanic eruptions and tsunamis and provides the basic information to prevent the above natural hazards from becoming economic and social disasters through basic educational information. This material includes the criteria for the integration of natural disaster preparedness concept into educational curricula, the aim being for interested countries sharing similar natural threats to adapt and replicate the publication. *For more information, please contact mailto:bangkok@unescobkk.org*

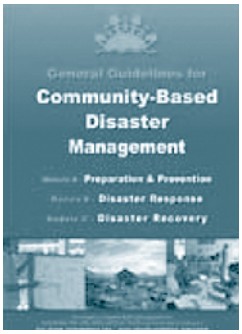
BOOK ON MEDIA PROFESSIONALS' EXPERIENCES IN REPORTING 2004 TSUNAMI PUBLISHED



UNESCO believes that first-hand experiences from media and information professionals who were assigned to Aceh only a few days after the tsunami hit the province in 26 December 2004 would be valuable as a source of information or records on what they did in that difficult period and how they overcame all the challenges.

A team of researchers and writers from the Department of Communication, University of Indonesia, was invited to carry out the research by interviewing a number of journalists who were reporting on Aceh shortly after the tsunami. In addition to that, the team also interviewed a number of ICTs experts who have successfully restored the Internet connection in Banda Aceh. The book was officially launched in conjunction with the Aceh media meeting to commemorate the first anniversary of the tsunami.

COMMUNITY-BASED DISASTER MANAGEMENT TOOLKIT, UNESCO JAKARTA



UNESCO Jakarta has developed a publication entitled "Community-Based Disaster Management (CBDM) Toolkit" in cooperation with IDEP (Indonesian Development of Education and Permaculture Foundation) consisting of general but concise guidelines on preparedness and prevention of disasters at community level, a ready-to-use form book in the event of a disaster, brochures and posters on disaster preparedness, and eight comic books on different disaster topics, all of which are also contained in the included CD-ROM. The Toolkit is available upon request to interested parties, particularly government officials, NGOs and all stakeholders working in the field of DRR. *The online version may be viewed and downloaded from www.idepfoundation.org/cbdm_download.html*

BUILDING AN ANNEX READING ROOM AND PROVIDING MOBILE LIBRARIES FOR ACEH PROVINCIAL LIBRARY

With funds from Credit Suisse Group (CSG), UNESCO Jakarta has been entrusted to build an annex reading room for Aceh Provincial Library in Banda Aceh which was completely destroyed by the December 2004 tsunami. In addition to the reading room, the funds from CSG will also be used to provide two units of mobile libraries for the provincial library. The preparatory stages were carried out towards the end of 2005, while the real works will start in 2006.

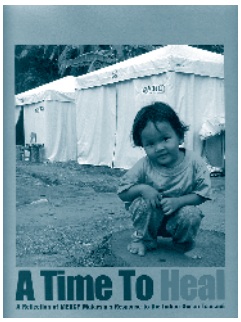
SUPPORT TO NEWS WEB SITE "ACEHKITA.COM"

Acehkita.com is a news web site initiated by some NGO activists with the main aim to provide news on Aceh that are accessible on the Internet. The web site is updated on daily basis with news, current affairs, analyses and photos on Aceh that are very useful for public.

UNESCO provided support in terms of operational costs (content production and web site maintenance) for the web site for a four-month the period from November 2005 to February 2006. The web site can be accessed on www.acehkita.com

MERCY MALAYSIA

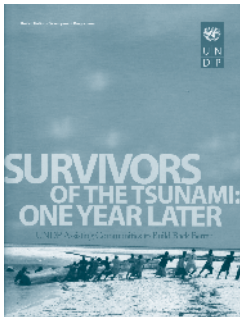
A TIME TO HEAL - A REFLECTION OF MERCY MALAYSIA'S RESPONSE TO THE INDIAN OCEAN TSUNAMI



Malaysia's Response to the Indian Ocean tsunami has been documented in a publication called "A Time To Heal - A Reflection of MERCY Malaysia's Response to the Indian Ocean Tsunami". The publication is an in-depth look at how MERCY Malaysia responded to the 26 December 2004 tsunami, through its medical and psychosocial relief interventions. *The document could be availed through the Mercy Malaysia web site at www.mercy.org.my*

UNDP

THE SURVIVORS OF THE TSUNAMI: ONE YEAR LATER



"For the people who lived through the tsunami, the devastation wrought by the disaster, one year later, is still very much part of their lives. UNDP is helping survivors rebuild their lives now, and for the future." ●

Afghanistan ▪ American Samoa ▪ Armenia ▪ Australia Azerbaijan ▪ Bahrain ▪ Bangladesh ▪ Bhutan ▪ Bismarck Archipelago ▪ British Indian Ocean Territory ▪ Brunei Darussalam ▪ Cambodia ▪ China ▪ Christmas Island ▪ Cocos (Keeling) Islands ▪ Cook Islands ▪ Cyprus ▪ Democratic People's Republic of Korea ▪ Fiji ▪ French Polynesia ▪ Gaza Strip ▪ Georgia ▪ Guam ▪ Hong Kong ▪ India ▪ Indonesia Iran ▪ Iraq ▪ Israel ▪ Japan ▪ Jordan ▪ Kazakhstan ▪ Kiribati Kuwait ▪ Kyrgyzstan ▪ The Lao People's Democratic Republic ▪ Lebanon ▪ Macao & Dependencies ▪ Malaysia Maldives ▪ Marshall Islands ▪ Melanesia ▪ Federated States of Micronesia ▪ Midway Islands ▪ Mongolia Myanmar ▪ Nauru ▪ Nepal ▪ New Caledonia ▪ New Zealand Niue ▪ Norfolk Island ▪ North Mariana Islands Oman ▪ Pakistan ▪ Palau ▪ Palestine ▪ Papua New Guinea The Philippines ▪ Pitcairn Island ▪ Polynesia ▪ Qatar The Republic of Korea ▪ Samoa ▪ Saudi Arabia ▪ Singapore Solomon Islands ▪ Sri Lanka ▪ The Syrian Arab Republic Taiwan ▪ Tajikistan ▪ Thailand ▪ Tibet Autonomous Region ▪ Timor Leste ▪ Tokelau Island ▪ Tonga ▪ Turkey Turkish Republic of Northern Cyprus ▪ Turkmenistan Tuvalu ▪ United Arab Emirates ▪ Uzbekistan ▪ Vanuatu Viet Nam ▪ Wallis & Futuna Islands ▪ Xizang ▪ Yemen

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Disaster Reduction in Asia & Pacific

ISDR INFORMS

A magazine from International Strategy for Disaster Reduction covering the field of disaster prevention and mitigation for all people of Asia and Pacific region.

Submissions are welcome

Informs is interested in articles or opinion pieces about projects, activities, programs, educational initiatives, and lessons learned. Scientific and technical papers are also welcomed, as is news about upcoming workshops, seminars, meetings, publications, videos, websites and other material related to disaster reduction.

Please send all submissions to rosec@un.org

Submissions should be concise and not exceed 1500 words. Brevity is appreciated in order to display the broadest possible spectrum of ideas and cases. When using an any acronym please quote the name of the body in full the first instance of use, even for large regional organizations.

Images and details

It is recommended you attach at least one high-resolution image, but you may include photos, graphs, charts and other illustrations. It is also essential for you to include at the end of the text the following information: 1) a contact where follow-up enquiries may be addressed (for print), 2) the institution represented, and 3) full contact details including email, telephone, fax, postal address (not to be printed).

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