



Cover Photo: East Timorese girl selling vegetables at the local market in Baucau

### Disaster Reduction in Asia ISDR Informs

is a collaborative effort of the United Nations Inter Agency Secretariat for the International Strategy for Disaster Reduction (UN/ISDR), the Asian Disaster Preparedness Center (ADPC) and the Asian Disaster Reduction Center (ADRC).

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#### Credits:

Co-Editors: Francesco Pisano, Aloysius J. Rego, Etsuko Tsunozaki Production Coordinator: Nicole Rencoret Graphic Design: Mario Barrantes Cover Photo: N. Rencoret

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Please send comments, contributions and subscription requests to: isdr@un.org

United Nations Inter-Agency Secretariat
of the International Strategy for Disaster
Reduction (UN/ISDR)
Palais des Nations
CH 1211 Geneva 10, Switzerland
Tel: +41 22 9172103 / 762 / 759
Fax: +41 22 9170563
isdr@un.org
www.unisdr.org

UN/ISDR Latin America and the Caribbean
P.O. Box 3745-1000
San José, Costa Rica
Tel: +506 224 1186
Fax: +506 224 7758
eird@eird.org
www.eird.org

UN/ISDR Africa Block U Room 217 UNEP, Gigiri, Nairobi, Kenya Tel: + 254 2 62 41 01 Fax: + 254 2 62 47 26 ISDR-Africa@unep.org www.unisdrafrica.org

### An Open Partnership for Disaster Reduction in Asia

Sálvano Briceño, Director, UN/ISDR



The International Strategy for Disaster Reduction has many friends in Asian countries. They are people working in national and international institutions, public administrations, universities and NGO's. This relationship is growing in strength and is based on a shared understanding of the importance to reduce vulnerability and risk in the face of natural and other related hazards. So, what is missing to bring about a substantial change in this area of work? We

are still lacking the critical mass of political commitment necessary to mobilise a significant amount of resources. Yet we are moving in the right direction and a fundamental change in mentality is gradually taking place in Asia and elsewhere: a shift from reaction to pro-action.

In this context UN/ISDR, ADPC and ADRC share common views on the need to promote disaster reduction as a strategic priority for sustainable development in Asia. They are also engaged with a variety of partners, internationally and locally, starting with ESCAP and UNDP, which have a major role in the region. ADPC and ADRC are also the two Asian entities on the Inter-Agency Task Force on Disaster Reduction, engaged as such in working towards achieving concrete results in their part of the world.

Still Asia may be too diverse and too vast for one all-encompassing strategic regional programme. Furthermore a number of strategic programmes exist already and many projects are underway. This is why UN/ISDR, ADPC and ADRC share the view that to proceed gradually to building capacities across Asia while developing an integrated regional programme for the future, the best option is to start from an open ended partnership based on building on existing capacities and ongoing initiatives that can be enhanced through synergy and collaboration. All entities active in disaster reduction in the region, at the international and national levels are encouraged to become part of the partnership, to benefit from the synergy that can be generated and to contribute their commitment to reducing risk and vulnerability.

In addition, the process leading to the Second World Conference on Disaster Reduction as well as the adoption and implementation of its outcome are at the same time a key focus for 2003-2005 and an opportunity to stimulate partnerships across the region in view of concrete initiatives for the benefit of communities in Asia.

UN/ISDR, ADPC and ADRC are hoping that this idea will attract interest from international and regional entities in Asia and inspire them to join forces with one another to provide abetter response to the increasing need for prevention by communities at risk across Asia.

### adpc Message from ADPC

Dr. Suvit Yodmani, Executive Director



It is with great pleasure that ADPC welcomes UN/ISDR's initiative to expand its regional outreach to Asia with the launch of the UN/ISDR Asia Partnership and this issue zero of "ISDR Informs for Asia".

In the late eighties, we at ADPC lent our regional voice to the global advocacy of the scientific community of the need for a decade for disaster reduction, and we were involved as a key regional partner throughout IDNDR, especially after Yokohama. Milestones include the

collaboration between the IDNDR Radius Project and our Asian Urban Disaster Mitigation Program, the coorganizing with UN-ESCAP and the IDNDR Secretariat of the February 1999 Asia Meeting in Bangkok and the Bangkok Declaration and the release of the ADPC-IDNDR publication: "Managing Disasters in Asia and the Pacific: A Review of Lessons Learned During the International Decade for Natural Disaster Reduction" at the Geneva Forum in July 1999. As an Asian member of the ISDR Task Force since its inception in 2000, and a consistent and keen advocate of the spread of ISDR Partnerships and platforms to the region, national and local levels, ADPC wholeheartedly endorses the launch. We have already worked closely on a bilateral basis with each of the founding partners: UN/ISDR, ADRC, UNESCAP and UNDP(BCPR), and look forward to further synergies this new arrangement will bring.

Since July this year, we have restructured ADPC to focus on our "niche" technical areas: Building National and Provincial Disaster Management Systems, Community Based Disaster Risk Management, Climate Risk Management, Public Health in Emergencies and Urban Disaster Risk Management. The programmatic consolidation of this new structure will enable our teams to work effectively with our stakeholders and is the substantive focus we bring to the ISDR-Asia Partnership.

In the run-up to the Second World Conference in 2005 to be held in Asia, the Asia partnership and all its members will be able to bring to bear the rich lessons of the hard work of thousands of communities and organizations in countries of this disaster prone continent to help shape the direction of the Global Plan of Action 2005-2015 and its Regional Content.



# Message from ADRC Satoru Nishikawa, Executive Director



ADRC was established in July 1998 in Kobe (Japan), on the basis of the Yokohama Strategy and Plan of Action, which stresses the importance of regional cooperation in disaster reduction, to actively promote disaster reduction activities by collecting and sharing information, enhancing capacity among member countries, and encouraging regional and international cooperation. ADRC currently comprises 24 Asian countries as member countries, 4 countries outside of Asia as advisory countries, and the Asian Disaster Preparedness Center (ADPC) as an observer.

Owing to the background of its inception, ADRC attaches special importance to the review of the Yokohama Strategy and Plan of Action, which the ISDR Secretariat is carrying out, and is committed to contribute to the process leading up to the consolidating event, World Conference on Disaster Reduction, to be held in Kobe, Hyogo in January 2005. In this context, ADRC

supported the session "Effective Early Warning - use of hazard maps as a tool for effective risk communication among policy makers and communities -", organized by the Government of Japan on the occasion of the Second International Conference on Early Warning (EWC-II) held on 16-18 October 2003 in Bonn, hosted by the Government of Germany.

ADRC intends to further contribute to the review process and is organizing the "Asian International Conference on Total Disaster Risk Management" on 2-4 December 2003 in Kobe, in collaboration with OCHA-Kobe, supported by our major partners to promote disaster reduction activities in Asia. The Conference will advance the promotion of the Total Disaster Risk Management (TDRM) approach that ADRC has developed with OCHA-Kobe aiming to achieve sustainable development in Asia.

I am pleased to inform you, dear readers, that the Third ISDR Asian Meeting will be held on 6 February 2004 in Siem Reap, hosted and organized by the Government of Cambodia, co-organized by the Government of Japan and the ISDR Secretariat. The Third ISDR Asian Meeting will build on the results of the First ISDR Asian Meeting held on 24 January 2002 in New Delhi, hosted by the Government of India, as well as the Second ISDR Asian Meeting held on 17 January 2003 in Kobe, hosted by the Government of Japan.

ADRC will continue to enhance cooperation in disaster reduction in an endeavor to achieve sustainable development in the region. Please visit our website http://www.adrc.or.jp for more information.

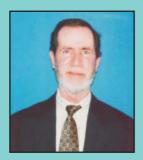
Asian Disaster Reduction Center (ADRC) E-mail: nishikawa@adrc.or.jp





### **Message from UNDP/BCPR**

Thomas Brennan, Regional Advisor for Asia and the Pacific Bureau for Crisis Prevention and Recovery, UNDP



During the past dozen years, most Asian nations have greatly improved their capacities to monitor hazards and to warn, evacuate and provide emergency relief to victims of disasters. As a result, the number of lives lost to "predictable" disasters such as floods, storms and volcano eruptions has decreased significantly during this period. China, for example, lost 4,832 lives to floods between 1991 and 1994, but only 2,909 in the last four years (1999-2002), while Pakistan lost 1,910 lives to floods in the first four years of the period but only 286 in the last four.

The disaster response accomplishments that these figures suggest are more remarkable for their having been achieved despite a sharp increase in the number, severity and duration of floods throughout Asia during the same 12-year period. From 1991 to 1994, China had 15 disastrous floods, Thailand had 8 and Vietnam had 7, while in the most recent four years, China had 29 disastrous floods, Thailand had 16, and Vietnam 12. During the last dozen years, flood disasters in Asia are estimated to have cost slightly over \$5 billion in damage, about 63 percent of the world total and almost three times the damage in the previous 12 years.

Taken together, these statistics-fewer lives lost but dramatically more flood events and much greater financial lossesare both encouraging and disturbing; they indicate great progress in disaster response but failure to manage increasing disaster risk. Some portion of the increase in disasters, within Asia and globally, is undoubtedly due to climate change, a problem to which Asia in general has contributed very little. However, much more of the increase appears to derive from inappropriate, insufficiently regulated, or "incomplete" development efforts during the past 25 years, as Asia's emphasis on rapidly increasing GDP during this period took precedence over disaster risk considerations.

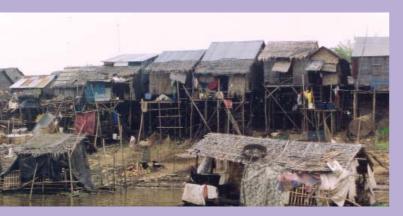
Examples of such development practices are everywhere: agricultural expansion into former drainage areas has extended and prolonged flooding in southern Vietnam; rural roads constructed on flood plains in many Asian countries impede water flow, which contributes to and prolongs floods; housing and urban development has contributed to rapid runoff flooding throughout Asia, and in some countries human settlements have completely taken over areas that used to serve as water reservoirs/retention ponds; logging permits have been routinely granted based on revenue and job creation considerations, with no attention being paid to increased siltation and its impact on downstream communities.

Integrating disaster risk management into the development process in these instances would have assured that compensatory drainage was factored into agricultural expansion plans, that flood reduction culverts and spans across water channels were factored into rural road design, that flood retention pits were included in housing plans to offset increased runoff, and that potential siltation calculations helped determine logging extraction rates. Clearly, in each instance disaster risk management considerations would add marginally to the cost of the development activity. However, failure to factor disaster risk management into the planning process is usually extraordinarily costly in the long run, makes sustainable economic development more difficult to achieve, and frustrates efforts to reduce poverty (especially as, in Asia, disasters tend to strike the same communities repeatedly).

An important undertaking of the Partnership will be to advocate and promote the integration of disaster risk management in the development planning process. Toward this end, UNDP's Bureau for Crisis Prevention and Recovery (BCPR) is pleased to join the Partnership to share information and identify expertise, to develop and promulgate risk management tools, to develop and deliver appropriate training programmes, and to assist in mobilizing resources to help Asian nations include risk management in their on-going development efforts. In collaboration with Asian nations, we believe the Partnership can and will help reduce disaster impact and thereby contribute to sustainable social and economic development.

## Asian International Conference on Total Disaster Risk Management

The Asian Disaster Reduction Center (ADRC) and the Asian Disaster Response Unit of the United Nations Office for the Coordination of Humanitarian Affairs (OCHA-Kobe) are co-organizing a conference entitled "Asian International Conference on Total Disaster Risk Management (TDRM): Achievements and future challenges in the promotion of TDRM on local and national level in Asia - the role and collaboration among stakeholders in Governments, IO and NGOs" on 2-4 December 2003 in Kobe (Japan). The Conference is supported by the ASEAN Foundation, Cabinet Office (Government of Japan), Hyogo Prefecture, ISDR, UNESCO, UNU, The Great Hanshin-Awaji Earthquake Memorial Research Institute, Nakauchi Foundation, NHK, and AM Kobe.



The Conference aims at promoting the TDRM approach among non-traditional yet critical stakeholders and exponents of disaster reduction through developing a strategic understanding of how to integrate TDRM into the national planning process and disaster reduction and response systems of the participating countries towards sustainable development. It will emphasize the importance and relevance of TDRM to the pursuit of sustainable development through examples of best practice and current initiatives in Asian countries and the region, including effective disaster risk communication among stakeholders. It will also initiate discussions on effectively promoting TDRM and addressing the various constraints and challenges ahead for disaster reduction.

The TDRM approach was jointly developed by ADRC and OCHA-Kobe through a series of consultative forum and workshops in the region, in collaboration

with our major partners in Asia such as the UNDP Regional Disaster Reduction Advisors in Asia and the Asian Disaster Preparedness Center (ADPC).

TDRM builds on the gains of the IDNDR and ISDR, and other relevant endeavors. It integrates and complements existing knowledge and techniques on disaster reduction and risk management. Moreover, TDRM promotes effective integration of stakeholders' action and facilitates broad-based participation in policy and program development in disaster reduction and response as they relate with other development concerns, such as poverty reduction, land use planning, environmental protection, and social security, among others. Through the strengthened cooperation, collaboration and networking among governments, non-governmental organizations, international and regional organizations, and other critical sectors, including the private sector, academia and media, TDRM is expected to become an important strategy for effective disaster reduction and response in the region. TDRM shares the similar concept and approach developed and promoted in other regions such as CHARM by SOPAC in the Pacific and CDM by CDERA in the Caribbean.

The expected outputs of the international conference are the following:

- At least 60 participants from Asian countries, representing government and critical sectors, shall have participated and appreciated the relevance of TDRM to sustainable development, its practical applications demonstrated by best practices and current initiatives, and the challenges in implementing TDRM at country level;
- 2. A set of reference materials on best practices and current initiatives on TDRM, including the proceedings of the conference; and
- 3. Establishment of a collaborative network of advocates and practitioners of the TDRM Approach at local and international levels.

For more information on the "Asian International Conference on Total Disaster Risk Management", please contact the Asian Disaster Reduction Center (ADRC) by e-mail (rep@adrc.or.jp) or by fax (+81-78-262-5546).



### Consultation Workshop on Early Warning System Effectiveness of Early Warning Systems in Asia/Pacific

26-28 May 2003, Bandung, Indonesia

Consultation Workshop on Early Warning Systems: Effectiveness of Early Warning Systems in Asia/Pacific was held in Bandung, Indonesia, from 26 to 28 May 2003. As part of the common efforts to prepare for the International Conference on Early Warning Systems to be held in Germany in October 2003, the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) and the United Nations International Strategy for Disaster Reduction Secretariat (UN/ISDR) jointly organized the Regional Consultation on Early Warning Systems: Effectiveness of Early Warning Systems in Asia/Pacific in cooperation with the Directorate General of Geology and Mineral Resources (DGGMR)) of Indonesia and with financial support of the Federal Institute of Geosciences and Natural Resources (BGR) of Germany.

The objectives of the workshop were:

- To support and assess the effectiveness of early warning processes and identify issues in implementation initiatives
- (2) To assist authorities to develop the legal, institutional, financial and political frameworks for early warning systems based on case studies and success stories
- (3) To develop approaches for sharing early warning knowledge and experience
- (4) To document and share current and future techniques relevant for early warning, vulnerability and risk assessment strategies

The Workshop was attended by 30 participants from 5 countries, namely Germany, Indonesia, Japan; Thailand and Viet Nam and from the following international organizations: UNESCAP, UN/ISDR, UNDP, Mekong River Commission, GTZ and an NGO.

The participants were divided into three groups which focus on common experiences on overall disaster management, geological hazards and water-related hazards. The three groups were requested to undertake three working sessions on the following three themes:

- Theme I Emerging Issues: Identification of emerging issues and trends in early warning and types of risk (hazards and vulnerability factors)
- Theme II Early Warning & Sustainable

- Development: Identification of good examples to implement early warning schemes and programmes for disaster risk reduction and sustainable development.
- Theme III Sustaining the Early Warning Dialogue: Identification of needs (local, national, regional and international) to ensure the sustainability of integration of early warning to natural disasters into public policy.

In the Asian and Pacific region, the participants recognized the importance and larger prospects of the forecasting and warning systems of meteo-hydro hazards such as floods, landslides and drought. They also recognized the importance of regional cooperation for further improvement of the existing early warning systems and exchange of experiences in dealing with related disaster management. For example, flooding of squatter in Jakarta raised a need of dual/parallel approaches those are flood forecasting/warning to meet immediate humanitarian needs and social/engineering absolute solution such as relocation of houses and enlargement of drainage capacity.

The sessions devoted to identification of most important and priority actions for the Asian and Pacific region to be presented at the International Conference on Early Warning II in October 2003 in Bonn. The participants agreed to make the following recommendations:

- Support forums for dialogue to share information, technology and best practices and to improve cooperation at all levels
- Support integration of disaster risk management into national development process
- Develop and implement EWS, especially for flash floods, landslides and forest fires
- Establish and develop community-based disaster preparedness programmes
- Establish a financial facility to enhance risk management of developing countries
- Develop and strengthen database to facilitate resource allocation
- Improve public awareness on disaster vulnerability
- Enhance hydrologic and meteorological forecast capability
- Support projects to facilitate application of forecasts at the national, local and community levels
- Enhance research on earthquake risk analysis

### Adopting a regional approach towards living with risk

By the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)

At the UNESCAP-ADPC Forum on Natural Disaster Reduction in 2003, held at the United Nations Conference Centre, Bangkok on 8 October 2003, Mr. Kim Hak-Su, Executive Secretary, UNESCAP called for further promotion of the concept "Living with Risk" as the linkage between disaster management and sustainable development in Asia and the Pacific. He pointed out that the economic impact of natural disasters has continued to increase during the past half century and water-related disasters, including floods and storms, caused the highest economic losses, among the natural disasters in the region. According to recent surveys, including those conducted by UNESCAP, Asia and the Pacific is one of the most vulnerable regions of the world to disasters, including floods, cyclones, earthquakes, droughts, storm surges, tsunamis and haze. Losses caused by such natural disasters are particularly damaging, depriving countries of resources, which could otherwise be used for economic and social development. The toll from such disasters is most severe and tragic in the least developed and developing countries of the region, which have sometimes had their development goals set back years and even decades as a consequence of major disaster impacts.

Tropical cyclones occur more frequently in this region than in any other parts of the world, and are usually accompanied by severe flooding. While major river floods in the region continue to be a common occurrence causing substantial annual damage, the impact of flash floods is also increasingly becoming important. On the other hand, storm surges have the potential to cause substantial loss of life and property damage and serious socioeconomic impact to small island countries in the region.

From the related best practices in the region that UNESCAP has collected over the past few years for integrating disaster management into the socio-economic development process, he pointed out that sustainable development of countries, therefore, requires effective integration of natural disaster management programmes into the socio-economic development process. According to various studies undertaken by UNESCAP on the processes of integration of water-related disaster management measures into the national socio-economic development processes, best practices can be classified into three major models: (1) as an integral part of the national economic development process, (2) as a social component, and (3) as an important process towards sustainable development.

With respect to the first model, comparison of two successful economies in the region: Japan and the Republic of Korea reveals interesting lessons on two contrasting approaches on the integration of flood control into the development process. Immediately after the end of the Second World War, flood control was conceived as an important priority for the reconstruction and rehabilitation of the economy of Japan. The rehabilitation and prevention of natural disasters, especially by flood, was accepted as one of the five priority objectives of the Five-year Economic Rehabilitation Plan, drafted in 1948. As a part of the national development strategy, flood control could then be seen as an integral part in providing support to the industrialization programme. On the other hand, investment in the flood control

programme in the Republic of Korea was not evidenced during the initial years of development, as top priority was given to industrialization. The systematic integration of flood control activities into the national development strategy was first made in the Programme for Village Environmental Improvement for the rural development component (Saemaul Undong) in 1970, and was fully integrated into the development process from the Fourth Five-year Plan (1977-1981) onwards. The experience in the Republic of Korea showed that community participation in the flood control programme should be considered as an important factor for integrating it into the national socio-economic development programme.

Disaster reduction is considered a social component of national development in several developing countries, where the costs of flood control measures are too high as compared with annual government budgets or allocations for public sector investment. Prioritization of disaster reduction activities is a difficult task in the context of the national socio-economic development process. The example of Bangladesh provides one of the best practices in this group of model. In 1995, the Water and Flood Management Strategy of Bangladesh was drawn up to identify feasible structural and non-structural measures for mitigating flood disasters and to provide an overall framework to prioritize disaster reduction activities for national development. The establishment and implementation of the national strategy on flood management demonstrated that firm commitment on the part of the Government, the active participation of the affected communities and assistance from the donor community are required to ensure that priority measures are properly undertaken to meet the priority social needs.

In several countries, activities on water-related disaster reduction were conceived as an important part of an environmental management strategy for sustainable development, and they accounted for a major share of resources being allocated to the national water resources management programme. Examples of such strategies include the conceptual approach to flood control and management initiated by His Majesty the King of Thailand for the Chao Phraya River basin in Thailand; the amendment of the River Law of Japan in 1997 to incorporate environmental dimensions in the flood control programmes; and the Klang River Basin Environmental Improvement and Flood Mitigation Project in Malaysia in 1998.

In all these examples, clear strategic approaches are first developed to ensure that the respective action programmes are well established and the participation of all stakeholders is guided towards the adopted vision. Effective integration of disaster management activities into socio-economic development processes requires the development of strategic approaches towards "Living with Risk". Information management is a key component and the foundation for a systematic application of strategic planning and management to disaster management. In that context, further strengthening of partnership in the region becomes instrumental to the effective integration of disaster risk management into the socio-economic development process in this wide and diverse region of the World.