Disaster Reduction in AFRICA
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From Africa to Japan,

Some 9 months remain before the January 2005 Second World Conference on Disaster Reduction (WCDR) in Kobe - Hyogo, Japan.

Africa definitely is expecting *much* from WCDR. But before expecting *much*, shouldn't we first contribute *a lot* to WCDR II? Indeed, as one expert put it: "A conference is like a computer database, its output depends on the input".

What should Africa expect mostly from WCDR?

1. That the rest of the world *knows* that even though Africa is not the most disaster-prone continent, its high vulnerability to disasters is such that it is the most affected continent;
2. That the rest of the world *understands* that to address this vulnerability issue – which is an obstacle to sustainable development, Africa has to shift from disaster response to disaster prevention/reduction;
3. That the rest of the world *sees* or, at least, *feels* that Africa's shift (or will to shift) to disaster prevention/reduction is genuine; and
4. That, after seeing (or feeling) that Africa is genuinely pursuing this cause, and given that the event will be under the aegis of the *United* Nations (nations united or seeking unity), the rest of the world *pledges* to accompany Africa in this new venture.

How could Africa possibly contribute to WCDR in the light of the above?

A major initiative is under way on the continent, initiated by the AU Commission, the NEPAD Secretariat and UN/ISDR Africa. It involves all African RECs (Regional Economic Communities), national governments and other UN agencies. It is aimed at developing an African Regional Strategy for Disaster Risk Management that is supposed to be adopted by the next AU Summit.

Such an endorsement by African leaders is the very *key* contribution that Africa can make and should take to Kobe. Why?

1. A formal endorsement of such a relatively "obscure technical matter" by African leaders will not go unnoticed on the international chessboard.
2. It will be the expression of a shared determination on the part of African *peoples*, African *civil societies*, African *institutions* and African *leaders.*
3. Being a formal and high profile commitment proclaimed before the international political, scientific, technical and development communities, its genuineness is likely to appear more "genuine".
4. The rest of the world disaster management community too stands to gain. Indeed such a move by Africa, if backed only by a section of the rest of the world, would help to elevate disaster prevention/reduction to another "pillar" of sustainable development.

Africa's *key* asset in Kobe is the AU Summit's stamp of approval. But because the next AU Summit will be held in July, we are left with only two months (May and June), 61 days, 43 working days…

Are 43 working days enough? Yes, 43 "hard" working days are enough… provided, however, that we bear in mind that this AU Summit will be our last port of call on our long journey *from Africa to Japan.*

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UNDP Announcement

From this third issue of *"ISDR Informs – Disaster Reduction In Africa"* UNDP's Bureau for Crisis Prevention and Recovery (BCPR), and specifically its Disaster Reduction Unit (DRU), is happy to announce that it will provide support to UN/ISDR Africa for production and translation costs.

BCPR serves to bring focus and substantive support to UNDP's overall strategy and range of disaster reduction and recovery activities, involving UNDP Country Offices, Regional Bureaux and specialized agencies. As the focal point in UNDP for the ISDR and within the framework of the goals and objectives of the UN/ISDR, BCPR, in direct collaboration with UNDP Country Offices, provides substantive and financial support to operational activities to strengthen capacities for disaster reduction to enable national governments, regional organizations, local authorities, civil society and other stakeholders to design and implement relevant and effective policy frameworks, strategies and plans, programmes and projects to manage and reduce disaster risks.

In Africa, BCPR's Disaster Reduction Unit is collaborating closely with UN/ISDR to provide support to the promotion and implementation of disaster risk reduction at regional, sub-regional, national and local levels and within the United Nations and other agencies and organizations through:

- Increased disaster risk management capacity and institution building with national governments, regional and sub-regional organizations, UN Country Offices and other stakeholders
- Implementation of sustainable recovery programmes that emphasise long-term risk reduction
- Development and promotion of the dissemination of knowledge and information on disaster risk reduction through new and existing networks
- The integration of disaster risk reduction into country development programmes, the UNDAF and CCF
- Supporting programmes at regional and sub-regional level that aim to enhance national programmes
- Working collaboratively with other UN agencies and national and international organizations.

IN THIS ISSUE

Accountability, governance in disaster risk reduction

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Efforts are now being made in Africa to lay the foundation for long-term solutions to reduce disaster risks, but the issue of stakeholder accountability still remains unclear. This article seeks to initiate a discussion on how best to develop accountability mechanisms and institutional coordination – to maximise the ongoing efforts.

The recurrence of natural disasters on the African continent is catching the attention of political leaders, and gaining prominence in the sustainable development agenda. However, while efforts are now being made to lay the foundation for long-term solutions to disaster risk reduction, the issue of stakeholder accountability in disaster risk reduction in Africa still remains unclear. The purpose of this article is to initiate a discussion on how best to develop accountability mechanisms and appropriate institutional coordination at all levels, to ensure maximisation of efforts aimed at disaster risk reduction.

Who is responsible?

There are many institutions that have different roles and responsibilities in disaster management. These include governments (at various levels), the private sector, the research community, non-governmental organisations (NGOs), community-based organisations (CBOs), development partners, and various UN agencies. Given the multiplicity of stakeholders in the area, with differing mandates, ascertaining who takes final responsibility for integrating disaster risk reduction into development planning becomes intricate.

Technically speaking, governments should bear the final responsibility. However, many governments face a multitude of constraints in integrating disaster risk reduction into their national development frameworks, hence the importance of stakeholder and development partner support in integrating disaster risk reduction in development planning.

Need for well-articulated partnership

Development partners, NGOs and the private sector have a big role to play in influencing and shaping government policies and strategies. However, there are limits on the extent to which they take responsibility for the final outcome of development processes, irrespective of the roles they would have played in shaping the same development agenda.

Having a well-articulated partnership between governments and their development partners, including non-governmental institutions, is therefore important to not only ensuring effective disaster risk management but ultimately poverty eradication, and attaining the internationally agreed Millennium Development Goals (MDGs).

The Partnerships, as they have been perceived and which are further elaborated in other sections of this article, should extent beyond political agreements and frameworks, to encompass programmatic implementation, based on the principle of mutual accountability, and shared responsibility, including at national as well as local levels.

"Mutual" accountability

The debate around mutual accountability in relation to development is central to NEPAD, and has been highlighted as critical in changing Africa's engagement with its development partners *from one of donor-recipient to one of equal partners*.

Under NEPAD, African governments, *both individually and collectively,* have pledged to take responsibility for Africa's development agenda. However, given the pervasive and far-reaching nature of impacts and causative factors of vulnerability, the efforts of governments should be complimented by stakeholder and development partner support. In that regard, the NEPAD base document appropriately stipulates that:

> *What is required to mobilise … resources* [capital, technology, and human skills] *and to use them properly, is bold and imaginative leadership that is genuinely committed to a sustained human development effort and the eradication of poverty, as well as a new global partnership based on interest.*

If this is to be taken as the guiding principle, high-level two-way accountability would require analysis of the following:
(i) What is the level of government accountability with regards to disaster risk reduction? (ii) What is the level of accountability of the donor community, including the implementing agencies, with regards to disaster risk reduction? Technically, and politically, guiding frameworks exist that provide a basis for the accountability of both governments and development partners in relation to development assistance and its effective use in Africa. These frameworks can be applied to the area of disaster risk reduction.

Below is a list of selected internationally-recognised and adopted frameworks:

- The NEPAD base document;
- The Development Partnership Strategy (first set out in the OECD/DAC 1996 policy statement on *"Shaping the 21st Century: The Role of Development Cooperation"*);
- The Millennium Development Goals
- The Monterrey Consensus
- The Kananaskis G8 Africa Action Plan
- The 2002 OECD Ministerial Statement in "Action for a Shared Development Agenda"
- The World Summit on Sustainable Development Johannesburg Plan of Implementation
- The Africa Peer Review Mechanism (APRM)

Shared" responsibility

Given the critical role of development partners and institutions in shaping the agenda in disaster risk reduction, they should not be seen to absolve themselves from the outcomes of the implementation of these agendas, but rather embrace a shared responsibility between all partner institutions and the respective governments.

The habitual working relationship in dealing with DR (Disaster Reduction) issues has remained as it has always been known specifically, because of the way that development partners and institutions and governments chose to work in the past. Having now recognised, through NEPAD for example, that the past approaches to disaster risk reduction have not delivered the desired outcomes, it is the responsibility of all concerned to go back to the drawing board and develop a plan that can work in the long term.

In addition, there is a need to ensure that all practitioners adopt the commitments and guidance such as those provided in internationally accepted development frameworks (such as those pointed out above) in their daily operations. This will ensure a move away from the "victim" syndrome, whereby recipients neglect investing in long-term strategies for disaster risk reduction, through predictions that humanitarian aid will come during these times of need. Simultaneously, the donor community would also need to avoid the "saviour" approach, awaiting until disasters strike before releasing resources, and therefore presumably "imprinting" in the minds of communities the image of "saviour-in-times-of-need".

Clearly these two approaches do not work, and communities become the long-term losers, as they are the most affected and with no opportunity to influence policy change.

Two-pronged approach, win-win situation

Past experience in African development has demonstrated that *short-term project approach* to integrating disaster risk reduction is not sustainable.
There are various examples of situations where development partners and institutions only rally around a disaster by providing humanitarian assistance. Once the actual disaster has receded, in physical terms, there are often no sustainable follow-up mechanisms to strengthen the capacities of affected communities and governments, to enable them to cope with future disasters of the same nature and magnitude.

While such humanitarian assistance is always critical as an immediate response, it does not add value on a sustained basis. What is needed is holistic and two-pronged approach that addresses both the short-term impacts of a disaster, as well as the overcoming root cause of a country, or community's vulnerability. Development partners and institutions and indeed governments need not just be involved on an "event" basis. They rather both need to create an integrated and holistic approach will lead to a win-win situation, whereby a country's resilience to natural disasters is strengthened, and any additional resources can then be used for developmental purposes, particularly in the vulnerable areas.
In this way, African ownership of DR processes is created and sustained, and development partners would truly contribute to the attainment of the MDGs and the achievement of NEPAD objectives.

Policy coherence

While there is a need to ensure mutual responsibility amongst all stakeholders, it is also important that countries develop the appropriate policies and institutional base to guide the implementation of DR programmes at national, sub-regional and continental levels.

Without clear guidance on how countries prefer implementation to take place, and the roles and responsibilities of stakeholders, it may become difficult to hold partners, as well as the implementing countries, responsible for activities that occur in a vacuum.

The work that the AU/NEPAD is undertaking (in partnership with the UN/ISDR Africa, in cooperation with UNDP and UNEP) on developing a continental strategy for disaster risk reduction, is aimed at providing policy guidance for the implementation of sub-regional and regional initiatives on disaster risk reduction. The initiative is aimed at implementing coherent and complimentary disaster risk reduction programmes at the continental level, and

provides a platform for partners to converge in a coordinated manner to achieve shared objectives.

Institutional coordination at the country level remains a challenge to integrating disaster risk reduction in development planning. Sustainable development requires effective institutional coordination among various government complex, working arrangements and mandates. Good policies and strategies are only as good as they can be effectively implemented. This requires coordinating mechanisms that are currently absent in many countries. If progress is to be made in the integration of disaster risk reduction, institutional coordination needs to be prioritised as a "must" at all levels. This will avoid duplication of activities, competition among institutions and overlap among government departments.

Lack of clarity around roles and responsibilities. Another serious impediment to building the capacities of countries to responding to natural disasters is lack of clarity around roles and responsibilities amongst many stakeholders. The private sector usually responds to natural disasters by providing basic and immediate amenities (such as transport, food and blankets), and yet are hardly involved in policy formulation for disaster management. Furthermore, NGOs and CBOs, which work closely with communities where the problems occur, are often hardly consulted on the development and implementation of policies on disaster management.

It can therefore be said that the uncertainty surrounding the roles and responsibility of international partners and national governments in many cases is further compounded by lack of clarity on the role of stakeholders at the national level. It is important that governments create national multi-stakeholder forums for disaster management, whose functions, amongst others, would be to streamline the roles and responsibilities of all stakeholders.

Role of research, research community. One of the most debated issues with regards to roles and responsibilities has been that of the role of research and the research community in disaster risk reduction.

The research community has an important role to play in directing policies on the basis of research findings, but their relationship with policy makers and implementers has not always been clearly linked. In addition, the role of the international research community vis-à-vis local policy making is even more variable. In this context, there is a need for streamlining clearly articulated roles and responsibilities of all research stakeholders who work in the area of disaster management into national policy frameworks.

Conclusion

Long-term investments are a prerequisite for effectively integrating disaster risk reduction in sustainable development. However, such investments can only happen with a coherent and integrated policy and institutional framework with clear mandates for stakeholder involvement. Regular engagements between governments and their development partners are therefore critical for shared responsibilities and effecting stakeholder accountability, as well as monitoring the achievement of shared goals.

Disaster risk reduction is a development matter and should be a shared responsibility of development partners, national stakeholders and national governments, regional economic communities (RECs), the African Union, as well as NGOs, CBOs, the private sector and UN agencies working in this field. ■

ZIMBABWE - Disaster Management Act expected in Parliament in June; MPs briefed, consulted

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Harare, Zimbabwe

A Disaster Management Act will be submitted to Parliament in June. Meanwhile, MPs have been briefed and consulted during an "advocacy seminar". An "unplanned gain" was scored on the budgetary front…

An Emergency Preparedness and Disaster Management Act that will replace the 1989 Civil Protection Act in Zimbabwe will be presented to Parliament sometimes in June this year. But before submitting the bill, the Department of Civil Protection (Ministry of Local Government, Public Works and Transport) has organized a three-day advocacy seminar for MPs.

Seminar for MPs, wider consultation of stakeholders

The purpose of the two-day seminar was to acquaint parliamentarians on the historical and conceptual background information on disaster management, as well as to enable them to make informed decisions on the proposed provisions of the revised Act.

The workshop was part of a wider consultation process aimed at strengthening policy and legislation on disaster management in order to ensure effective and efficient disaster management and sustainable development

During the seminar, key stakeholders in disaster management presented their roles and current shortfalls in preparing and responding to emergencies or disasters.

Through the ensuing discussion, suggestions were made to improve the service delivery of the Department of Civil Protection through its own provisions and also through the efforts of collaborating partners.

On the whole, the consultative process was a success. The legislators' insight management was markedly improved at the end of the exercise. Participation during the discussions was lively and the need for the new policy thrust was endorsed.

Unplanned gain on budgetary front

Unlike other stakeholder consultations, the advocacy seminar, perhaps deliberately so, did not yield much in the way of recommendations. Its focus was on informing the participants. It therefore achieved its major objective.
The workshop also scored an unplanned gain on the budgetary front. It became apparent that the budgetary allocation to the Department of Civil Protection needs to be boosted in line with the diverse emergencies befalling the country. The legislators undertook to ensure that Parliament would ensure that adequate funds would be voted into the Fund at the material time.

Some legislators felt that the presentations by some facilitators were too technical for their comprehension. This observation was noted, leading to the toning down of some deliveries. Emphasis was then put on discussions rather than in the presentations to the satisfaction of the majority.

Background to review of 1989 Civil Protection Act

It was noted that the need to review the Civil Protection Act of 1989 was based on a number of events and activities that happened in the past decade, the most notable ones being the following : the National Policy Review Workshop on Disaster Management in Zimbabwe, the National Technical Emergency Preparedness and Disaster Management Workshop for Focal Points, EPR (Emergency Preparedness) workshops held in all the 8 provinces, The National Conference on Lessons Learnt on Cyclone Eline Induced Flooding Disaster - November 2000.

The above workshops were attended by various stakeholders, and it was noted that all the workshops recommended the need for central government to provide more funding for disaster management as well as to review the Civil Protection Act, inter alia.

The MPs were then told that it was against this background that the Department of Civil Protection had undergone the process of reviewing the Civil Protection Act considering some of the recommendations made during consultative meetings with sector ministries, the private sector, NGOs and local authorities.

Following these various consultative meetings with stakeholders, the Department of Civil Protection came up with a draft Emergency Preparedness and Disaster Management Act.

War-related civil protection concept outdated

The MPs were informed that the Act was ready for tabling in Parliament, and that the seminar was therefore a continuation of the consultative exercise, this time focusing on parliamentarians, a crucial facet of the legislation reform process. The Director of Civil Protection said the overall aim of the seminar was to strengthen policy and legislation on disaster management in order to ensure sustainable development.

It was also noted that civil protection was a concept that evolved as a result of wars and was not well understood by many people.

Funds for disaster management not adequate

It also appeared that the role of civil protection was not appreciated by many, even policy makers, hence its marginalization when it comes to funding.

The plenary meeting felt that the funds allocated for disaster management was not adequate.

It was also noted that there was urgent need for the country to acquire specialized rescue equipment to effectively deal with disasters of all kinds.

Minister calls for adequate funding

In his opening speech, the Minister for Local Government, Public Works and National Housing, Dr IMC Chombo, stressed the need to put in place mechanisms that would ensure proper disaster prevention and preparedness by all stakeholders.

The Minister said the effects of disasters were far reaching in terms of human deaths and suffering as well as for the economy. He pointed out that it was against this background that it was imperative to seek positive support from parliamentarians as the policy making supreme body representing the political will of the people.

He stressed that the provisions on the new Act would widen the preparedness and capabilities of the country to deal with the ever-increasing disasters.

The Minister emphasized the need for adequate funding for disaster management in the country and called for parliamentarians' support so as to enable substantial budgetary allocation for the Department of Civil Protection.

He stressed that disaster management could only produce quality results if it was appropriately and adequately funded. ■

Africa disaster reduction efforts hailed, Africa working group to be formed

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Collaborative efforts being promoted by UN/ISDR Africa with regional and UN partners are providing significant assistance in advancing better understanding of disaster risk reduction in Africa.

This comment was made during the 8th meeting of the UN Inter-Agency Task Force on Disaster Reduction (IATF-DR) held in Geneva in November 2003 under the chairmanship of the UN Under Secretary-General for Humanitarian Affairs and Emergency Relief Coordinator, Mr Jan Egeland.

The IATF-DR is one of the two structures the UN International Strategy for Disaster Reduction (UN/ISDR), the other structure being the Geneva-based UN/ISDR Secretariat whose Africa outreach programme is UN/ISDR Africa.

Among the major issues discussed during the Geneva meeting was the process of disaster reduction activities in Africa.

Towards a "Working Group on Disaster Reduction in Africa"

The IATF-DR welcomed a report jointly prepared by the African Union (AU), the NEPAD Secretariat, Drought Monitoring Centre – Nairobi (DMCN – renamed IGAD[1] Centre for Climate Prediction and Applications, ICPAC) and UN/ISDR Africa.

In this connection, the IATF-DR recommended that continued efforts be made within the framework of the ISDR to support, strengthen and promote sub-regional collaboration in Africa, including the ongoing AU/NEPAD-led process of developing a comprehensive strategy for disaster risk reduction in Africa.

It was agreed that a disaster risk reduction forum known as "Working Group on Disaster Risk Reduction in Africa" should be established in Africa in 2004.

The Working Group to be chaired by the AU will get support from UN/ISDR Africa. Membership of the Working Group will comprise the AU, the NEPAD Secretariat and all Regional Economic Communities (RECs). The UNDP will represent, in observer status, UN agencies working on disaster risk reduction issues in Africa.

It was suggested that in addition to UNDP representation in the Working Group, UN agencies may convene separate meetings to facilitate their work in relation to the Working Group.

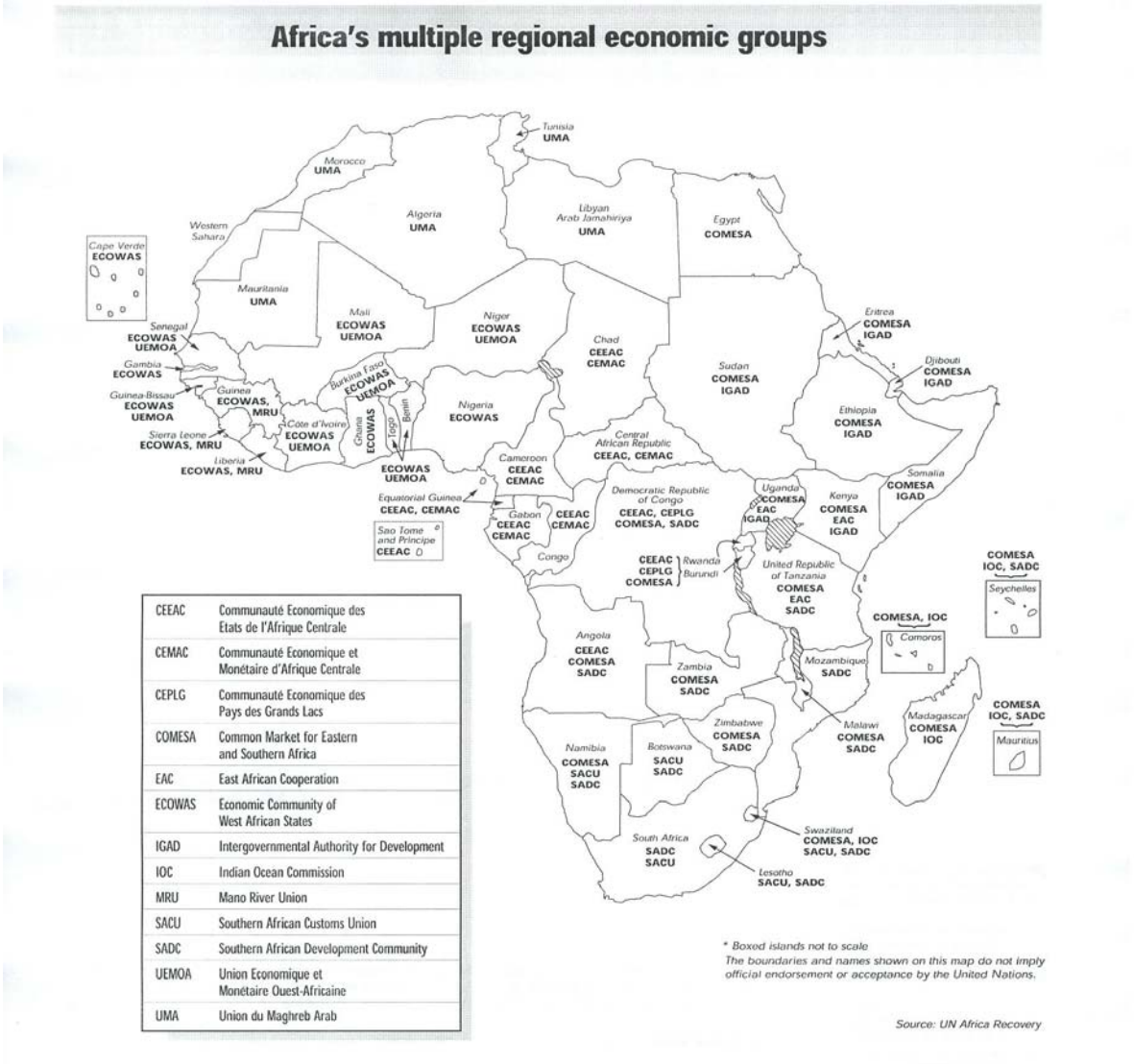
Overall goal of the Working Group

The overall goal of the Working Group is to support the efforts of AU/NEPAD and national governments to advance disaster risk reduction and facilitate the mainstreaming and integration of disaster risk reduction into all phases of development in Africa, in order to achieve the objectives of NEPAD.

Specific objectives

The Working Group will focus on:

- Providing guidance on disaster risk reduction to national authorities;
- Providing guidance on regional preparation and recommendations for the Plan of Action of the World Conference on Disaster Reduction (WCDR) to be held in Kobe, Hyogo, Japan, in early 2005;



CEEAC	Communauté Economique des Etats de l'Afrique Centrale
CEMAC	Communauté Economique et Monétaire d'Afrique Centrale
CEPLG	Communauté Economique des Pays des Grands Lacs
COMESA	Common Market for Eastern and Southern Africa
EAC	East African Cooperation
ECOWAS	Economic Community of West African States
IGAD	Intergovernmental Authority for Development
IOC	Indian Ocean Commission
MRU	Mano River Union
SACU	Southern African Customs Union
SADC	Southern African Development Community
UEMOA	Union Economique et Monétaire Ouest-Africaine
UMA	Union du Maghreb Arab

- Enhancing collaboration and coordination among different stakeholders on disaster mitigation and management, such as droughts and floods in Africa; and
- Facilitating the creation of a body of knowledge in disaster risk reduction in Africa.

Proposed activities in 2004

The first meeting of the Working Group was convened from 26 to 27 April 2004 in Johannesburg, South Africa. Proposed activities for the year are, among others, to:

- Develop a network on drought in Africa and coordinate the compilation and dissemination of information on mitigation of the impacts of disasters, such as drought;
- Foster development of ISDR national platforms to advance disaster risk reduction at national level;
- Encourage gender-inclusive disaster management policies and initiatives, mainly through promotion of women participation;
- Identify gaps of disaster risk reduction and key areas of intervention;
- Coordinate regional preparations for African participation in the World Conference on Disaster Reduction (WCDR); and
- Advocate the necessity and importance of integrating disaster risk reduction into poverty alleviation strategies and sustainable development.

Africa moving towards reducing impacts of disasters

The activities listed above and UN/ISDR assistance to Africa demonstrate the extent to which Africa is moving towards reducing the devastating impacts of disasters on development efforts.

The formation of the Africa Working Group, and the development of its scope of work, is also evidence of the seriousness of the AU in addressing impediments to Africa's development, such as natural disasters, in the context of NEPAD.

RECs have been identified as pivotal drivers and implementers of NEPAD programmes at sub-regional level, hence their inclusion in the Working Group as focal sub-regional representatives.

It is to be noted that the role of the Working Group will be to provide guidance and advice on relevant matters that require a continental approach. The Working Group will not implement projects. ■

Mitigation of earthquake disasters in Uganda

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Uganda is one of the most seismically active country in sub-Saharan Africa. The following is an article on the Ugandan situation, the challenges faced by the country, the initiatives taken, and the possible way forward. (Original text slightly edited by UN/ ISDR Africa for larger circulation; sub-headings inserted editorially)

Earthquake occurrence in Uganda is mostly related to the East African Rift System (EARS). The country's western border lies almost wholly within the western branch of the EARS, while its eastern branch is only about 200 km from Uganda's eastern border. Moreover, the western branch terminates in Uganda.

This unique geological setting makes Uganda one of the most seismically active countries on the African continent. Some of the earthquakes that have occurred in the country caused death and damage to infrastructure worth billions of Uganda shillings.

Most of deaths result from collapsing buildings

The Tororo earthquake of 1966 in Western Uganda, for instance, left 157 people dead and 1,320 others injured, and destroyed and caused damage to some 67,000 huts and houses. The 1994 Kisomoro earthquake (also in Western Uganda) caused damage and destruction worth 6bn Uganda shillings (3 million US dollars) and killed 8 people.

The physical consequences of earthquakes to people are death, injury and damage to man-made structures, most of the deaths resulting from collapsing buildings.

However, death and destruction caused by earthquakes have been lower in Uganda compared to devastation in other countries by earthquakes of the same magnitudes. The main reason is that most earthquakes in Uganda have occurred in areas of little infrastructure and low population density. This combination of absence of developed infrastructure and low population density is what has saved the country.

Number of infrastructures like concrete housing stocks doubling

However, over the last 17 years, Uganda has been developing very rapidly with growth rates of 5-8% of GDP. Such a rapid economic growth, coupled with high population growth, has been manifested in valuable infrastructural development such as modern concrete housing stocks that has doubled in numbers over the above period. The housing stocks are both commercial and residential, and are mainly in urban areas.

With such high economic, population and house construction rates, and with seismic activity being the highest in sub-Saharan Africa, the country's Department of Disaster Management is deeply worried of the possible magnitude of the disaster when the next significant earthquake strikes. Indeed, significant earthquakes are bound to reoccur in Uganda.

Need for mitigation measures, skills

The fact remains however that death and damage to infrastructure can be minimized through appropriate seismic hazard mitigation measures.

These measures include activities such as 1) land use planning, (2) awareness creation, (3) development of organisational capacities, (4) projecting the magnitude of anticipated damage, (5) putting in place vulnerability reduction measures such as publishing model designs of new structures that can withstand seismic forces and encouraging their use, (6) development and enforcement of building code elements, and (7) undertaking research in the formulation of comprehensive methods for assessing social vulnerability to earthquake threats.

However, management of earthquake disasters is multi-sectoral, and personnel having all the various skills required are not available from any government department/ministry.

Public awareness initiatives taken

Meanwhile, to educate and raise awareness among members of the public on various issues of earthquake disasters (including earthquake disaster preparedness and mitigation), the Department of Disaster Management (DDM) has successfully organized a series of workshops and seminars in Kampala city and Fort Portal Municipality.

In December 2000, DDM and Uganda Seismic Safety Association (USSA) successfully organized, in the capital, an international conference on disaster preparedness under the theme "Reducing Earthquake Effects in Developing Countries". The conference attracted participants from USA, Europe, Asia, Japan and many African countries. DDM and USSA organized a similar international conference on disaster preparedness in December 2002 under the theme "Earthquake Hazards in a Developing Country".

The international conferences, workshops and seminars provided opportunities for researchers,

practitioners and other stakeholders to share experiences on earthquake disaster preparedness and management. It brought together professionals from the broad range of disciplines committed to reducing the impact of earthquakes on society. These disciplines include geology, structural engineering, architecture, seismology, emergency response planning, mobilisation and media.

National seismic code, technical construction manuals in place

Following recommendations made by the international conferences, the Department of Disaster Management, in partnership with Makerere University's Faculty of technology and Uganda National Bureau of Standards (UNBS), prepared a National Seismic Code.

Also, together with the Ministry of Works, Housing and Communication, it prepared technical construction manuals to guide construction of seism-resistant structures in earthquake disaster prone areas.

The DDM and USSA (Uganda Seismic Safety Association) are planning to construct and equip a demonstration unit to be referred to as "National Seismic Information Resource Centre".

Towards a "Seismic Information Resource Centre"

This centre will have all the kinds of technical information on earthquake engineering, earthquake disasters caused by previous earthquakes, earthquake counter measures/mitigation efforts from other regions and related information in the field of seismology.

The centre will be constructed with the following provisions: (1) a museum to capture the photographic records of previous earthquakes, (2) a conference/ seminar room to allow for sustainability of the venture, (3) a video room to allow for showing of damage, experiences from previous events, (4) office space, reception hall, ablution areas and other services.

The acquisition of a seismic information resource centre would provide Uganda and many African countries with a central point for such information. It will further give us an opportunity to evaluate the designs that have been prepared, draw lessons and share such experiences with the local communities and beyond.
The resource centre will strengthen the work of district disaster management committees, as well as that of local NGOs. Additionally, it might prepare/produce training material for school children. ■

For more information on earthquakes in Uganda, please contact the following engineers:

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- **Dr E.M. Twesigomwe**, Faculty of Social Sciences, Makerere University. Tel. +256-41-531498
- **Mr M. Matovu**, Lecturer, Faculty of Technology, Makerere University. Tel. +256-77-507357point for such information. It will further give us an opportunity to evaluate the designs that have been prepared, draw lessons and share such experiences with the local communities and beyond.

SENEGAL: Flood-prone coastal town promotes culture of risk

Aliou Mamadou DIA
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Flood impact in Saint-Louis town, Senegal, is worsened by human behaviours. A culture of risk has been promoted to enable people to acquire some good reflexes. But shifting to a culture of risk is not that easy…

It was only after the harmful floods of 1994 and 1999 in the northwestern coastal town of Saint-Louis that flood control and protection strategies have become a matter of urgency.

Developing a culture of risk then became a must for the Lower Senegal town residents (over 150,000 people), most of whom living on flood plains.

Water… everywhere

Located between the ocean and River Senegal's numerous arms and affluents - that constitute water belts around the town, the site's peculiarity is that water is just everywhere.

During the entire rainy season, the same sequence of events does invariably occur with more and more tragic floods. First comes the tragic and shocking scenery, followed by an assessment of the material damage and human casualty – which enables to see how serious the event was. Then, immediately after, some tentative explanations of the phenomenon are given, explanations that invariably raise the issue of human responsibility.

Flood impact worsened by… residents

Even though the floods are obviously a fact of nature, their impact on local residents depend to a large extent on the residents' behaviours.

Therefore, all queries about human factors involved in the floods occurring in the River Senegal valley, and in a section of the national territory (namely Saint-Louis town), would focus on possible negligence in land use and protection, alert and prevention measures. In a nutshell, the queries amount to an analysis of all possible acts of negligence that might have made it difficult to control the phenomenon and reduce its impact.

Indeed local residents, by lack of knowledge, carelessness, thoughtlessness or lack of memory, would just worsen the impact of the floods.

It is clear that no prediction, no prevention and no preservation is perfect. However, this cannot be a justification for the laxness that prevails in Saint-Louis region when it comes to land use. Hence the need to promote a genuine culture of risk among residents.

Past events… not remembered

Indeed it is because such a culture of risk is missing, and especially because past events are not remembered, that floods have invariably been taken so lightly.

It is also the same lack of risk culture that paralyzes or inflames any debate on what would be the right political choices for flood protection and prevention measures in Senegal.

Land use in flood-prone low-lying areas surrounding Saint-Louis town is drought-based, and the low river levels and scarce rainfall of Senegal's long drought period do not incite to build protection devices.

Risk management structures put in place

As said earlier, flood control and protection became a matter of urgency after the harmful floods of 1994 and 1999.

In July 2001, a *Commission nationale de gestion prévisionnelle des inondations*

(CONAGPI - National Commission for Predictive Flood Management) was established under the supervision of the Interior and Local Government Ministry in collaboration with the Ministry of Town and Regional Planning.

The Commission, known generally as the « National Flood Control Unit », is composed of several regional units whose mission is to make a census of all flood-prone zones and suggest solutions to the national unit. The objective was to conduct a thorough assessment of the situation prevailing in regions affected by floods, and promote synergy between all those involved in flood management so that relatively long-term solutions could be found.

During the major floods of September 2003, a crisis unit was set up under the supervision of the Interior and Local Government Ministry following an order from the President of the Republic. The crisis unit, which grouped together almost all the other government ministries, was mainly charged with the duty of taking urgent measures likely to handle the situation, especially the construction of lateral water outlets and compensating reservoirs upstream from threatened sites.

Management, plans of action ahead of rainy seasons

Management activities ahead of rainy seasons in Saint-Louis are restricted to meetings and gatherings initiated by the regional flood control unit. The meetings and gatherings are aimed at conducting a thorough evaluation of the town's security arrangements before the first rainfall. The regional unit can also take some important decisions regarding the rehabilitation of dykes and embankments, and the clearing of conduits, etc.

Plans of action ahead of rainy seasons therefore specify whatever technical measures should be taken regarding sanitation networks, fuel for mobile pumps, sandbags needed to set up makeshift dykes. The plans of action also define hygiene awareness activities and social assistance for flood victims.

Long-term flood management in Saint-Louis gives greater importance to the construction of protection structures like dykes and embankments. It is also based on an emergency flood control programme guided by the *Office national de l'assainissement du Sénégal* (ONAS – Senegal National Office for Sanitation). Some embankment rehabilitation work was completed on the island under the programme, and rainwater sanitation measures - such as construction of pump units and balancing reservoirs - defined.

Developing a culture of risk

Because of the magnitude of the floods that have occurred over the last few years, promoting a culture of risk has become relevant within the framework of prevention programmes to be implemented by government authorities to promote dialogue between all those concerned.

It is not about terrifying local residents, it is about sensitizing them by reminding them that zero-risk situations do not exist; and that to enable residents to face any possible disasters adequately, some good reflexes must be acquired.

However, beyond this matter, the whole issue is about how to develop such a culture of risk in a context that seems to be characterized by fear and devastation. It would indeed be better that, on one hand, the disaster risk is known, and that, on the other, they could also prepare for its occurrence. Also because no one – government authorities, experts or technicians – can assure that absolute security will be there, such preparedness should not be the sole business of experts.

Shifting to culture of risk not easy

In the light of the above, flood risk management in Saint-Louis should be a shared responsibility. It should also rely on some commitments by all the parties involved or to be involved.

It is clear that shifting to a culture of risk cannot be done without difficulties. One would perhaps easily predict that adaptive behaviours can be expected from those local residents concerned as a result of the more and more frequent occurrence of floods. However, those local residents concerned believe that their daily behaviours should not be altered, nor restrictive regulations enforced, when it happens that the much feared events seem to never occur.

In fact, those prevention policies that seek to sensitize local residents on the risks they are exposed to, and strive after winning their support, might come up against the above difficulties. Such a situation calls therefore for a better identification and analysis of the factors that may oppose the advent of a culture of risk in the region of Saint-Louis. ■

DISASTER RISK REDUCTION: Enabling communities to manage water

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Water management is essential to disaster risk reduction, say three South African experts. And managing water "everyone's responsibility", not just that of governments...

Water is life, but its potential to destroy life, the environment and the products of human endeavour is a harsh fact of nature : too much all at once is a mightily destructive flood; too little for prolonged periods can culminate in crippling drought, famine and mass migration of people away from traditional lands.

Many risks of everyday life water-related

Water is also a receiving environment for many pollutants created by industries, urban living and disease-carrying animals, bacteria and viruses. Many risks of everyday life in Africa are water-related.

All too frequently, devastating droughts affect large areas of our continent, causing famine, crop and livestock losses. At the other extreme, floods and associated landslides often create untold havoc and destruction. In both cases, socio-economic problems as well as health risks ensue.

Africa is particularly at risk because its geography exposes much of the continent to extreme weather conditions – from tropical storms with torrential rains to no rain at all for months or even years at a time. These extreme conditions are likely to increase in frequency and intensity due to Global Climate Change.

Managing water everyone's responsibility

The impact of drought is compounded by more and more land being stripped of its natural vegetation cover - through over-cultivation and over-grazing - to accommodate a rapidly expanding population. Loss of natural cover and poor land-use practice also contribute to erosion of topsoil and a reduction in soil nutrients as a result of increased leaching and surface runoff. The end result is an insidious decline in recharge to the groundwater aquifers and the silting up of rivers. Africa is challenged to develop sustainable, long-term ways and means to reduce humankind's negative impact on the environment; and to manage the continent's diminishing water resources against the backdrop of more extreme climatic conditions, poor land practices and a fast-growing population. Managing water is everyone's responsibility – not just that of the government - and enabling communities to help themselves is a first step in this quest.

Water management essential to disaster risk reduction

Appreciating the fundamental influence of water and its proper management is an essential pre-requisite to the development of disaster risk reduction measures, especially in Africa with its volatile and unpredictable medium-term weather patterns.

Regional plans for long-term sustainable development, sufficiently robust to withstand the inevitable consequences of flood and drought, require a holistic understanding. Pro-active measures to mitigate water-related risks will allow communities to limit the impact of the inevitable floods and droughts on their

environment, and so prevent them from developing into full-scale disasters.

Despite an emerging awareness at governmental level of the risks from water-induced disasters, a long record of poverty, population growth, lack of infrastructure, poor education and ineffective management of resources makes many communities increasingly vulnerable to water-related disasters. This problem is compounded by negative political and economic factors that force refugees from disaster areas to migrate to under-populated marginal areas that, by their nature, are more prone to risks of flooding and drought.

Enabling communities to initiate risk reduction measures

There is a growing realization of the need to foster a better understanding by the general population of water's complex role in their everyday lives.

Understanding causes and consequences is a fundamental step in enabling communities to initiate their own risk reduction measures.

In recognition of this factor, the UN/ISDR is publishing two educational booklets on *"Water & Risk in Africa"*: one as a community leader's guide and the other for schools - to enable them to inculcate awareness in their pupils of water risks.

Much can be done at village level

Communities are not powerless in adopting risk reduction measures to aid their coping mechanisms for surviving water-related disasters. There is much that can be done at the village level; in educating community leaders to understand the workings of water, and to accept that they have the choice,

responsibility, and means to adopt pro-active measures lead to a significant reduction in the risks facing their communities.

Empowering communities to become pro-active and make best possible use of own resources for disaster risk reduction has an important economic dimension. The call on national emergency funds and foreign donors for disaster relief aid is lessened, and the relief may be better used for purposeful medium- to long-term development in the recovery phase of a disaster. More money may then be channelled into creating sustainable development projects and water management schemes, to the overall benefit of all.

Three-tier approach

Although empowering communities is a fundamental step in reducing water-related risks, this must be seen as but one of a three-tier approach which needs to be adopted by:

1. supporting national government programmes for disaster risk reduction;
2. initiating regional programmes that encourage the authorities to adopt an holistic approach to water management; and
3. providing local leaders with insight into the complexities of water-associated risks and the need for prevention and mitigation initiatives at community level.

Drought, governance & social conflict in southern Somalia

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Somalia... Chaos, civil unrest, poverty, loss of livelihood, wanton loss of life... Ali Warsame Nagheye says these were accelerated by lack not only of mechanisms for conflict transformation but also of... drought preparedness and mitigation processes.

Located in the Horn of Africa, Somalia had a population of 8 million dispersed in the Diaspora all over the world – as a result of the breakdown of the central government system and internecine civil atrocities perpetuated by warlords. There are, however, unknown numbers still remaining in the countryside and urban centres, most of whom are still displaced persons.

Southern Somalia is a low-lying land slightly above sea level, where the two major rivers of Shabelle and Juba play a central role in the life of its inhabitants. The rainfall is low, erratic and highly unpredictable, causing floods when it comes. Due to very high temperatures, evaporation rate is very high, resulting in low water balance hardly enough for both plant growth and livestock production.

Massive losses due to drought every year

Drought occurrences in the region are frequent with a short one every three years and a long and severe one every five years. In spite of the resident communities' evolved survival mechanism to span these droughts, massive losses are incurred annually in terms of livelihoods and life.

Over the years and before the breakdown of the Siad Bare government in the late 80s, processes initiated to mitigate the massive losses were few and inadequate. However, the people have developed elaborate coping mechanisms such as herd divisions ahead of the drought and, to a very large extent, these herds migrated towards the river to utilize available fodder and water.

Farmer-pastoralist conflicts common during dry spells

The Somali population can be classified according to their livelihoods: they are farmers (24%), pastoralists (42%) and a third cluster who are fishermen and traders.

Pastoralists continue to earn their living by moving their flocks of camels, cattle and goats in an endless search for water and pasture. Farmers, on the other hand, engage in crop production and are found within the rich alluvial soils of the Shabelle and Juba rivers whose water are used for irrigation.

During prolonged drought, pastoral nomads and farmers usually meet along river basins where the quest of the pastoralist is water and fodder. In general terms, the two are not the best of friends and conflicts are common during dry spells. Traders and fishermen hardly meet except where the traders exchange their goods.

During the war, people broke into many army barracks and armed themselves, thereby creating a basis for the atrocities that are all too well known. Most of those actively involved in these acts of self-armament were pastoralists. This is partially due to the highly mobile and militarized nature of their life. The farmers were generally the victims.

Pastoralists invade cropped lands along river

Earlier on, when there was a central government, the pastoral nomads used to visit the riverine areas during the dry spell only to access water and household provisions. They could not generally settle around the riverine areas due to the high prevalence of tse-tse fly as well as other biting insects.

The government had also decentralized livestock husbandry services to them by

making basic veterinary and other drugs highly accessible and available in the hinterlands.

The loss of a central government and the presence of illicit arms among the highly mobile people have had a heavy toll on the farming community who lost both their crops and their lives. In the process, the pastoralists invaded cropped lands along the river, allowing livestock to wantonly graze on crops. There was also a rural-urban drift where a large body of farming communities moved to displaced people's camps in urban centres.

The interplay of frequent droughts, absence of central government and civil strife accelerated the breakdown of people's social and cultural harmony and their decline into poverty and increased insecurity. The rampant availability and presence of small arms and light weapons deeply aggravated the situation.

Conflicting interests

The arrival of pastoral nomads on the riverine scene gave rise to a clash of interests where the farmer prepares to protect his crop and the pastoralist ready to die for his flock to access both herbage and water. This stand off is both cyclical and often results into bloody encounters.

The absence of the independent and regulatory third force that is a central government merely adds to the infernos. There is also the critical absence of initiatives to create public awareness and education linked to the development potential of area, as well as local traditional mechanisms for conflict transformation.

Breakdown of governance, law & order

The fall of the Somali central government in 1990 meant the breakdown of law and order with a corresponding increase in crime rate. What was uncommon before (like the ownership of arms by individuals) became common place, resulting into loss of property right and life.

When the central coordinating agency (government) was put in abeyance, people embraced what they new best - the clan lineage system whose central pole was the chief. of clan -, values varied from one clan to another, and the chasm was even wider between livelihoods. For instance, the farmer had values radically different from that of the pastoralist, and that of the fisherman *ad infinitum*.

In the ensuing struggle for domination, individual clans formed militias who armed themselves from the existing stock of weapons in circulation. In the rank and file of these militia were people who were from the disciplined forces of the former regime. The effect of the disparate ragtag armies headed by warlords is all too well known and needs no elaboration.

Despite its notoriety as a slow motion genocide killer, the militia continues to hold sway in the religion, leveraging support for individual and narrow interests.

Social conflicts

The clear effects of drought and breakdown of law and order mainly manifested itself in the weakening of people's socioeconomic wellbeing. The absence of drought preparedness and mitigation processes as well as mechanisms for conflict transformation rapidly led to chaos and civil unrest, poverty and loss of livelihood as well as wanton loss of life.

Social conflicts therefore arose mainly from the progressive decline in the rule of law, insidious loss of livelihood and erosion of community values leading to an anarchic protocol where individual interests vie to dominate one another.

Current problems hampering progress

Problems arising from the above mentioned situations and which are currently hampering any progress include the following:

- Local displacement of farming communities
- Low level of food production due to the migration of farmers to displaced camps in towns and cities
- High level of crime rate in town and cities
- Malnutrition of young children and mothers among displaced people Wanton destruction of environment and wildlife
- Destruction of river banks by pastoralists to create easy access of animals to the water and, later, this might change the course of the river waters and cause floods to settlements and farmlands
- Charcoal burning by both farmers and pastoralists to earn living

Grassroots communities' involvement vital

In the absence of a central regulating body to develop policies for sound management, reverse the current trends and improve production levels, there is a need to systematize the establishment of institutional structures at zonal level.

Such a measure will address:

- Food security in terms both of crop and animal production.
- Drought preparedness, mitigation and prevention procedures at community level.
- Marketing outlets for both farm and livestock products.
- Community empowerment and education, which will help to institutionalize traditional governance systems for conflict transformation.

This will also help to address environmental issues at the community level and help to re-orientate people's livelihood pursuits.

The success of all the above initiatives rest upon the involvement of community members at grassroots level, which also fits closely with the global trends of devolution of power.

Local communities' involvement leverages critical community support and goodwill which will, in turn, be pivotal to the desired project success and sustainability. ■

African researchers seek to understand vulnerability, resilience of rural livelihoods

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A research project seeking to understand the nature of vulnerability and resilience of rural livelihoods of communities has been launched in three areas in three southern African countries - Malawi, Zambia and South Africa. The three selected areas are repeatedly exposed to food insecurity, the impact of HIV/AIDS and other recurrent threats.

Named UNRAVEL (Understanding Resilient And Vulnerable Livelihoods), the project secretariat is based at the University of Cape Town, Disaster Mitigation for Sustainable Livelihoods Programme, which is collaborating with the Climate Systems Analysis Group and the Interdisciplinary MPhil Programme on HIV+ and Society. In Malawi, Cadecom, Chikwawa, Caritas, Malawi and Malawi Health Equity Network are involved. In South Africa, it is the University of Venda, Department of Advanced Nursing Science and NPHRAI NGO. In Zambia, the Diocese of Monze and the Network of Zambian People Living with HIV/AIDS are coordinating the research.

Fragile food security increasingly worsened by climate variability

Rural households in southern Africa live with a host of uncertainties on their livelihood security, living with high levels of "everyday risk". These factors singly, sequentially and cumulatively increase household susceptibility to shocks and stresses, and thus place household well-being at risk to threats such as HIV, as well as vulnerability to AIDS impacts. Households, whose livelihood food security is heavily dependent on agriculture - either directly through cultivation, or indirectly through seasonal labour and piece-work - are particularly vulnerable to the impact of climate variability, as well as market forces.

In the southern areas of Malawi and Zambia as well as Limpopo Province of South Africa, climate variability has reflected itself in "back-to-back" flood and drought conditions, exacerbating increasingly fragile conditions of food security.

HIV, household food security "inextricably linked"

It is now recognized that HIV and household food security are inextricably linked. Compromised family health increases household food insecurity, while insecure food and livelihood security increases the likelihood of exposure to HIV and vulnerability to AIDS impacts.

While imaginative epidemiological and action research has begun to identify broad risk patterns and relationships between HIV and food/livelihood security, there is a pressing need for further study to identify specific conditions that face at–risk and HIV-affected people.

Similarly, it is critical to identify livelihood patterns among at-risk and affected individuals and households that build resistance and resilience to expected shocks and stresses.

Such understanding is central for better targeting community prevention and mitigation programmes that, on one hand, address a broad suite of potential risks, but, on the other, are sufficiently differentiated to sensitively respond to specific household needs and priorities.

Which type of livelihood makes people vulnerable to AIDS impacts…

The UNRAVEL research project which, as already mentioned, seeks to understand the nature of vulnerability and resilience of rural livelihoods of the communities, will be supported by : (1) documenting the multiple shocks and stressors facing at-risk and affected households; (2) monitoring the ways in which these shocks and stressors are dealt with both positively and negatively at present, and how these might be better supported. This will help to assess the type of livelihood systems that make people and households particularly vulnerable or resilient to the impact of AIDS.

It is expected that the research will help to clarify the dynamics of rural livelihoods and the role of food security - particularly for AIDS-impacted households. It will also highlight how households cope with the small stresses and large shocks they are exposed to. This is critical for supporting rural livelihoods, as perhaps it helps in dealing with small stresses that is as important as dealing with large shocks. The details of what helps households - particularly those impacted by AIDS - to survive in the most sustainable manner is a key piece of information that could help with programming and further livelihood support.

Findings to be incorporated into care, development, academic programmes There will be an emphasis on distributing the knowledge generated by the research to the districts where research is taking place. The research team, together with the group undertaking advocacy activities, will develop strategies to integrate relevant findings into ongoing home-based care and food security programmes or other livelihood enhancement activities in the participating communities (including agroforestry and conservation farming). An effort will be made to support the dissemination of knowledge gained from the research into policy and practice of the implementing agencies.

In consultation with the research team and country Renewal networks, the advocacy team will develop country-appropriate strategies for disseminating knowledge generated by the research. These include engagement with the local print and electronic media, written accessible advocacy materials and the incorporation of key findings into formal academic programmes on disaster risk reduction and HIV/AIDS and Society. ■

Understanding Resilient and Vulnerable Livelihoods

Objectives

Identify and document "everyday" threats and other sudden onset and "creeping" threats faced by different at-risk and affected households during the course of a full agricultural cycle (12 months) in three comparative settings in Malawi, Zambia and Limpopo Province of South Africa.

Identify and document the livelihood responses of individuals and households to such risks and the consequences of this action for household and community well-being. Specific attention will be given to identifying gender differences in livelihood responses, especially as these apply to women and teenage girls.

Identify, where possible, those livelihood strategies associated with greater household resilience to AIDS impacts, and those which increase vulnerability to AIDS losses.

Identify, where possible, community and institutional mechanisms that either undermine or augment at-risk livelihoods assets, capabilities and activities.

Feedback the knowledge generated by the research to better sensitise ongoing home-based care and food security programmes or other livelihood enhancement in the participating communities.

Support the dissemination of knowledge gained from the research into policy and practice through partner networks as well as country and regional Renewal networks and its incorporation into formal academic programmes on disaster risk reduction and HIV/AIDS and Society.

Methodology

In each research site, a primary fieldworker/researcher will be employed full-time to undertake the work. There will be an effort to engage local stakeholder support from existing home-based care groups and HIV+ community members.
One village from each country has been chosen in Chikwawa District, Malawi, in the Diocese of Monze, Zambia, and in Vhembe District, South Africa. The villages have been selected in consultation with local stakeholders involved in HIV/AIDS-related work in the areas. Within each village, twenty (20) households have been selected. They comprise, where possible:

- Ten (10) households where there is a chronically sick member or where a family member has recently died from a chronic sickness;
- Ten (10) households that appear not to be directly impacted by HIV/AIDS in the sense that there are no chronically sick members and no one has recently died from a chronic illness.

The baseline data is being collected using a survey that includes basic livelihood data such as demographic background of household members, information on livelihoods, crops and production, livestock and other assets, livelihood strategies and dietary requirements. A section on shocks and stresses experienced within the household exists to document the nature and response to shocks and stresses. Part of the baseline monitoring includes a village perspective that involves participatory mapping by the community to identify both social and physical characteristics as perceived by the villagers themselves.

Each of the identified households will be visited once every two months for the duration of the year for ongoing monitoring. These consultations will aim at gathering in-depth information about the "small, medium and large-scale shocks and stresses" to which households are exposed, their respective response strategies and consequences for resistance and resilience. This will take into consideration the impacts of seasonality, including that of climate and labour opportunities. The role of gender and support for female and child-headed households will be examined. The role that cash plays in mediating the risk conditions of poor households will be incorporated, recognizing that elderly South Africans are eligible to pension, and poor families entitled to child grants.

Particular attention will be given to ensuring consultation with households in the selected communities so that the research is not an extractive undertaking, but a knowledge-sharing and generating opportunity for those involved.

Outputs

- A comprehensive research report will be produced. It will include information on the risks faced by different at-risk and affected households during the course of a full agricultural cycle (12 months).
- Livelihood strategies associated with greater household resilience to AIDS impacts, and those that increase vulnerability to AIDS losses will be documented. This will be complemented by the information gathered from non-AIDS impacted households to consider which households appear more resistant to shocks and stresses and which appear more susceptible to negative impacts.
- Community and institutional mechanisms that either undermine or augment at-risk livelihood assets, capabilities and activities will be identified.
- The report will be supported by two academic refereed papers.

MOZAMBIQUE: Maputo, a geo-environmental hazard prone city

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The Mozambican floods of the year 2000 were a world news event. Relatively little known was the fact that the capital city, Maputo, was also strongly affected. And that Maputo infact is a geo-environmental hazardprone city.

Geohazards are earth processes that are harmful to humans and their property. Over the last decades, geo-hazards are more reported in the world because the society is more environmentally conscious and has better communications than ever before.

Another reason is that Earth's expanding population creates higher vulnerability to harmful geological processes.

Most Mozambican cities, villages vulnerable

This is the case of most Mozambican cities and villages which, due to their population growth and deficient land use planning, lead to the occurrence of coastal and gullying erosion, landslides and floods.

Maputo, the capital city of Mozambique, is a geo-environmental hazard prone city due to its location in the coast, the geological characteristics, population density and inadequate land use planning.

Maputo is a coastal city located in the southern part of the country between the coordinates 25º 50´ and 26º 10´ S and 32º 30´and 32º 40´ E. It has a population of 1,018,938 inhabitants with a density of 1,700 inhabitants/sq. km. The population density is nearly five times more than its projection and this was caused mainly by human migration during the 1976-1992 civil war looking for security.

The rapid population growth caused an increase demand for land. The rising of land use pressure was not accompanied by the best practices of urban land use planning taking to the occurrence of geo-environmental problems. The main geo-environmental problems of Maputo are landslides and slope instability, gullying and coastal erosion and flooding.

Maputo prone to geo-hazards

Maputo City is prone to the occurrence of geo-hazards. The main geo-environmental events are landslides, gullying and coastal erosion and flooding.

Landslide is a general term for perceptive downslope movement of soil or rock. Landslides hazard refers to the probability of a landslide of a given size occur within a specified period of time within a particular area (Bell, 1998).

Gullying erosion occur mainly in dune sand deposits prone to surface erosion by water. Maputo City is surrounded on its eastern and southern sides by a long slope 20 to 50 m high, which limits the beach and Maputo estuary. The overall slope angle is between 20 and 40 degrees. The landslide and gullying events are concentrated on this slope. The gullies are deeply cut 1 to 15 m and very steep with side slopes generally up to 60 degrees but locally steeper (Fig. 1). Tens of these gullies are observed in the outskirts of Maputo City.

Causes of landslides, slope instability, gullying erosion

A combination of natural and anthropogenic factors lead to the occurrence of landslides and slope instability, and gullying hazards in Maputo City (Manuel & Vicente, 2003). In Maputo City were identified three natural causes of landslide and gullying: pluviometric precipitation, topography and geologic characteristics.

Pluviometric precipitation. The landslide and gullying hazard in Maputo City is mainly related to unusual, intense and short-lived rainstorm which occurred in February 2000 where a precipitation of 400 mm was registered in four days. This is far beyond 132 mm which is the average monthly precipitation during rainy seasons (October-March). This rain

saturated the soil slope and the water caused movement. Water promotes movement in two ways: as an active agent, it increases the loading (weight) of soil by filling previously empty pores; water also decreases the strength of the soil by reducing cohesion among particles (Coch, 1995). The soil saturation resulted in landslides and slope instability as well as deeply and steeply gullying failures.

Topography (Gravity). Topography is one of the main factors controlling mass movement. It is known that the steeper the slope, the greater is the tendency of materials to move downward. The topography determines also water velocity on the slope, which, in its turn, determines the size and quantity of materials transported downward. In Maputo City, the topography developed an important role in landslide and gullying erosion. According to the topographic map of Maputo, there is a topographic difference of up to 49 m between the beach/estuary areas with the upland. This altitude difference, according to the geologic sheet of Maputo, constitutes an inferred fault. The topographic difference and the slope angle have contributed to landslide and gullying hazard in Maputo City.

Geologic characteristics. Landslides and gullying erosion occur on the slope on Ponta Vermelha Formation. This formation is composed by ferruginous sandstones and red silty sand grading down into yellow to white sand. According to the geology of the area and geotechnical characteristics, the soils should allow easy infiltration of water to lower layers. However, due to the low cohesion of soils and with heavy rainfall, the water saturates the soils and decreases their strength, causing movement due to the influence of gravity.

Urbanization. The main identified anthropogenic cause of landslide and gullying is *urbanization*. Urbanization in dune sand area reduces the infiltration and percolation area, which changes the lag times in the hydrographs. During urbanization, vegetation is removed and surfaces are paved. Paving prevents water from sinking into the ground, so a greater volume of water runs off faster over the surface into the sea (Coch, 1995). These changes caused by urbanization shorten the lag time and increases peak discharge, thus increasing the risk of flooding. Rapid urbanization is not supported with a good drainage system to collect storm water. As the water runs off faster in the surface (unconsolidated sands), it erodes and transports soils downward the Maputo Bay. Combination of factors like soil characteristics and urbanization have made landslides and gullying hazards occur.

Coastal erosion. The coastline around Maputo City is dynamic due to shifting of sand or its removal from low-lying beach by longshore currents. It has moved tens of meters inland in the last decades and shows clear signs of coastal erosion. The signs are uncovered roots of trees and broken retaining walls.

The main causes of coastal erosion problems in Maputo are sea level rising and inadequate use of beaches.

Flood-prone areas. Some areas of Maputo City have geological characteristics that allow water accumulation, namely swamp areas and sandy surface layers underlined by clayey layers with low permeability. These clayey layers underneath the sandy layers make water infiltration nearly impossible.

These areas have been used as residential areas since the colonial time. The flooding problem is increasing due to population growth during the 1976-1992 Civil War and over-occupation of land and lack of land use planning. The flood-prone areas are mainly informal settlements.

Flash floods also occur downtown of Maputo City due to bad or lack of drainage system, or absence of maintenance.

Impact

Geo-environmental hazards have an adverse socio-economic impact on the population. For example, the Mozambican floods of 2000, that affected also Maputo, set back the fragile economic progress made over a decade.

The main effects that occurred in Maputo City from the described geohazards are:

- Destruction of houses and subsidence of higher buildings
- Destruction of basic infrastructures (roads, drainage and sewage systems, water supply sources)
- Collapse of waste collecting and disposal systems
- Marked increase of the incidence of diseases such as malaria, diarrhoea and cholera
- Deposition of sediments on basic infrastructures (football grounds, schools)
- Deposition of red sediments on the beach area
- Displacement of hundreds of families, mainly hardcore poor people;

Challenges, way forward

To solve the problems caused by geo-environmental hazards in Maputo City, integrating physical and socio-economic measures is needed.

A better urban land use planning, properly maintained and regularly serviced storm drainage systems, enforced legislation and institutional frameworks would prevent the occurrence of geo-environmental hazards in Maputo City.

Prevention and management of geohazards must be supported by research on disaster risk reduction. One of the most important tools of disaster risk reduction is the development of risk and hazard maps. Maputo City does not have these maps.

Topics which could be included to meet the needs of Maputo town planners - in addition to basic general geology - are the geological characteristics of soils, foundation conditions, landslides and slope instability, steepness of slopes, depth to rock head, hydrogeologic conditions, depth to water table,

susceptibility to flooding, etc. Each of these aspects can be presented as a separate theme on a basic or element map.

Another important element is the development of emergency plans for the cases of occurrence of disasters.

The disaster risk reduction should also be integrated in poverty alleviation policies because hardcore poor people are the most affected by geo-environmental hazards in Maputo City.

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Climate change adaptation & disaster risk reduction

David Lesolle
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Both climate change adaptation and disaster risk reduction seek to improve resilience. David Lesolle says climate change adaptation will basically ask what will happen if we go there? but the other important question – where do we want to go? - is asked by the disaster risk reduction strategy…

The number of people at risk to climate-related disasters have increased particularly in Africa. There is also a noticeable increase in the number of extreme weather events ranging from short-lived flash floods to large-scale droughts.

Weather-related disasters are a result of extreme variability in the natural climate. Every time our lives and existence are threatened by a heat wave, a flood, a storm with strong winds, we become vulnerable because the weather or climate extreme is beyond our expectation.

More extreme events expected

Under global warming and climate change, there will be more occurrences of extreme weather and climate. It is as a result of global warming and climate change that we continue to witness increased climate-related hazards that frequently result in disasters.
At ecosystem level, climatic changes are largely being displayed as changes in intensity of hydro-meteorological hazards such as floods, landslides, drought, as well as changes in species resilience, composition, etc.

Climate-related natural disasters also frequently negatively impact on food security, health and other core socio-economic functions.

Emergence of disaster reduction in 90s

The 1990s saw a growing appreciation of the need to link development gains and losses to disaster risk reduction (DRR). A first significant step was the declaration of the 1990s as the *"International Decade for Natural Disaster Reduction" (IDNDR).*

Furthermore, the Yokohama Strategy and Plan (for a Safer World) saw the need to promote prevention as an important and essential component of an integrated approach to disaster risk reduction.

In the second millennium, the World Summit on Sustainable Development (WSSD) (Johannesburg, South Africa, 2002) highlighted further disaster risk management as key to achieving poverty eradication, social development and sustainable development.

Opportunities, actions leading to improved resilience

There are many opportunities and actions that would lead to improved resilience and improved coping abilities to weather-related hazards. This may be achieved through:

- Strengthening of capacity of communities in managing and coping with weather-related disasters.
- Mainstreaming disaster risk reduction into developmental planning within communities and at individual level.
- Improved understanding of the problem leading to heightened vulnerability and applying best practices in disaster prevention, mitigation and rehabilitation and adaptation.

Climate change adaptation, DRR both seek to improve resilience

There are similarities in the way in which concepts are applied to climate change adaptation and disaster risk reduction. In both, the main objective is to reduce impact and mitigate or identify opportunities for adapting. Therefore, both aim to improve resilience to poverty, famine, socio-economic stress, etc., and in this way also aim to improve coping ability.

It is important to improve our understanding of how and when it is best to adapt. This will lessen our vulnerability to weather extremes and reduce the risk of a disaster.

There is a need to formulate adaptation strategies, enhance early warning systems and make sure the early warning systems communicate clear information on time, develop disaster hazard reduction strategies and build adaptive capacities.

We need to focus on and promote the links between poverty, weather disasters, environment and sustainable development. One necessary step is to couple the institutional arrangements assigned to these tasks. Weather-related hazards and disaster reduction must be considered simultaneously.

Integrating climate change adaptation, DRR strategies

Key components to achieving climate change adaptation and disaster reduction are: (1) climate change detection, (2) identification of adaptation options for disaster reduction.

The task of integrating climate change adaptation and disaster risk reduction strategies must call for restructuring of existing activities and developmental programmes. Vulnerability of local communities and ecosystems to global warming and climate change, and also therefore the communities' coping ability, must be assessed.

Once the vulnerability assessment has been undertaken, it will also be necessary to undertake an assessment of the ability to cope or adaptation capacity. The adaptation assessment must identify and evaluate technologies, practices and policy options necessary to increase coping capacity.

Climatic change adaptation, DRR share common challenges, objectives

The challenges for disaster risk reduction and those for adapting to global warming and resultant climatic changes are similar and the two share common objectives of poverty reduction, improved livelihoods and environmental sustainability.

While climate change adaptation will basically ask the question – *what will happen if we go there*? The other important question – *where do we want to go*? - is asked by the disaster risk reduction strategy. The latter question emphasises on a socio-economic goal. It remains important to ensure that disaster risk management is mainstreamed into the development process. A major achievement will be improved resilience, enhanced coping abilities, a reduced impact of climatic changes and a positive contribution to socio-economic development, including reduced poverty levels. ■

Flood and debris flow disaster in Algiers

Prof. Djillali Benouar
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Over 700 people dead, 312 others injured, 116 missing, some 10,000 homeless - in a single... day. In Algiers. On 10 November 2001. Algerian university lecturer and urban disaster risk expert Djillali Benouar has conducted a piece of research work on the flood and debris flow disaster...

Abstract

Exceptionally heavy rainfall (about 262 mm in 24 hours) and strong winds (120 km/h) hit central Algiers (capital of Algeria) on 10 November 2001, leaving more than 714 people dead and at least 312 others injured. 116 people were reported missing and some 10,000 others homeless, and more than 1,500 housing units were damaged. Victims had been buried under 2.5 to 10-metre thick mud in Triolet and the rubble of collapsed homes - hit by falling trees and power lines - or died by drowning in the streets. More than 350 vehicles (cars and buses) were buried under the mud with their passengers. Around one million cubic meters of mud were removed from the central Algiers district of Bab El Oued. The hard-hit zone is located at the foot of a 306-metre high hill. Most heavily damaged districts were those of Bab el Oued, Frais Vallon, Triolet (market stalls) and Oued Koriche which were submerged by torrents and mud and debris flows which washed everything on their way down to the sea. The present research work presents the damage, discusses the causes of the disaster, and suggests some preventive measures that should be implemented before the next disaster strikes.

Introduction

Algiers, the capital of Algeria, and its immediate surroundings have a total population of approximately four million. Algiers represents the country's most important concentration of investments, government institutions and population. In recent years, disaster risks have increased there due to overcrowding, faulty land use planning and building construction, inadequate infrastructure and services, and environmental degradation. Algiers' topography, waterfront location and old neighbourhoods (*casbah*) make it difficult to enforce radical solutions to most of its problems.

Also, because of the present pace and patterns of rural-to-urban migration and unplanned urbanisation which leads to increased population density in urban centres, especially Algiers, such areas have become increasingly vulnerable. Decision-makers need adequate information on the possible intensity of disasters likely to be faced by cities if they are to reduce disaster vulnerability.

The official assessment of the 10 November 2001 disaster in Algiers is very significant : 712 people dead; 115 people reported missing; 311 others injured; more than 1,500 families homeless; 350 light and other vehicles destroyed or buried; significant damage on infrastructures (roads, crater of over 10-metre diameter, damaged sanitation networks, silting of streets, etc.), buildings and houses (due to landslide, erosion and pressures on building foundations and structural elements, etc.).

Physical setting

Bab El Oued. The affected zone of Bab El Oued, with its neighbourhoods, is made up of several basin catchments receiving all the rains on a dense hydrographic

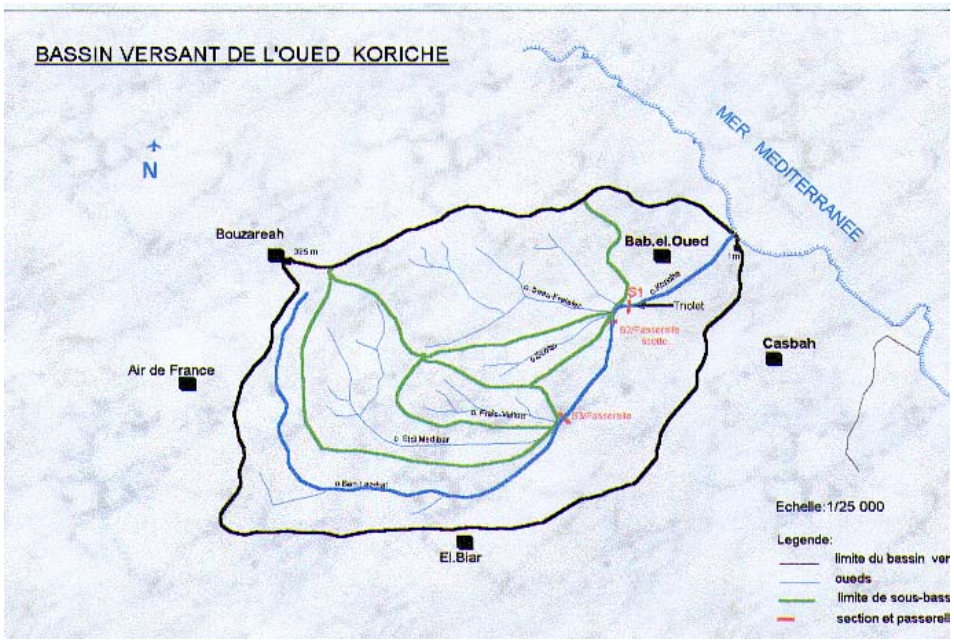

Figure 1 : Distribution of various oueds in the affected zone

network made up of a significant number of affluents or *thalwegs* which, when converging, constitute the *oued* (small rivers in Arabic) itself. In Algiers, there are about 11 oueds threatening this part of the capital and all of them meet in Bab El Oued ("Door of the river" in Arabic), as shown in Figure 1.

The catchment area of Oued Koriche. Oued Koriche, which has its source in Oued Ben Lezzehai on the southern side of Mount Bouzareah at an altitude of 395 metres, is in a 10-square-kilometre basin. The main *talweg* is 7-kilometre long. The hydrographic network consists of 4 oueds, tributaries, to some extent, of Oued Koriche which is under left bank basins. The 10-square-kilometre catchment area of Oued Koriche is both compact and very sloping (maximum altitude of 395 m and minimum altitude of 1 m) which favours fast water drainage. The main oued, on which is built the Chevalley-Triolet express motorway, collects all the waters of the flanks and is 7-kilometre long. Urbanization has reached the two slopes over the last few years, causing deforestation. Because of the torrential rains, the top soil was washed away by debris flows, which generated real mud torrents. The right bank slope was almost entirely urbanized and built.

Meteorological aspects of the event

In the evening of 9 November 2001, heavy rains and strong winds affected several areas of northern and western Algeria, causing a disaster situation of large proportions, with considerable loss of human lives and huge property damage. Rainfall observed on 9 and 10 November 2001 in the urban part of Algiers was exceptional.

Observations from weather stations in the affected zone indicated exceptionally large quantities (in 24 hours) that had never been observed since the station became operational 100 years ago. In fact, the observations were made at three weather observation stations in the affected zone: those of Bouzareah on the heights of the town of Algiers at an altitude of 344 metres, Cape Caxine (23 m away from the Bouzareah station), and the port of Algiers at an altitude of 3 metres. The following amounts of rainfall were observed:

STATION	ALTITUDE	RAINFALL (in mm)			
		From 06h00 on 9 November to 06h00 on 10 November		From 06h00 to 18h00 on 10 November	
		From 06h00 to 18h00	From 18h00 to 06h00	From 06h00 to 12h00	From 12h00 to 06h00
Bouzareah	344		129.2	132.4	
Cape Caxine	23	0	262.2	262.2	
Port	3	26.9	72.0	109.0	109.0

Floods, debris flows and landslides

On Wednesday 14 November, rescue workers reported that their gruelling work was hampered by lack of access to the affected areas in the densely populated district, where many roads were still blocked by huge amount of debris and mud. Bulldozers (graders) and other vehicles that could get access tried to dig through 3 to 10 metres of mud and debris. Health teams were dispatched to the affected site to check the quality of drinking water and prevent outbreaks of water-borne diseases.

The public authorities were fearing that putrefying corpses buried under the mud could increase health risks.

The flooding at Frais Vallon lasted 1h 45mn. At Triolet, water levels reached 2.45 m and a speed of 6.47 m/sec and the flooding lasted more than 2 hours. In Oued Koriche, where all the waters accumulated and had a very high flow rate, water levels reached a maximum of 2.45 m at a maximum flow rate of 730 m^3/sec and a contribution of 2,600,000 m^3. Some 800,000 m^3 of debris were - roughly - estimated to have been washed away by waters.

Damage caused

Severe damage was inflicted on roads, housing, schools, ports, bridges, vehicles and lifelines. In the worst hit neighbourhoods of Algiers, water, electricity and gas supplies were disrupted.

Many people were also washed away by water currents in the flooded streets which were acting as rivers. In Bab El Oued, 61.5 % of the total number of dwellings appraised by experts were damaged. Bab El Oued was the most affected district in terms of damage. This is due to the density of the habitat (often decayed) and its geographical location.

Housing units classified by the expert evaluation as "Green" of level 1 (those that suffered no damage) account for approximately 7 %, that is 65 housing units out of 896. As the number of "Green 1" housing units was negligible and with no significant effect on the findings, one should focus only on housing units which suffered damage, namely those classified as "Green 2", "Orange" and "Red". In Bab el Oued District, almost of 1 out of 5 (18.9 %) housing units of the building apartment stock was damaged.

The number of housing units demolished was 543 units, which is comparable with that of "slightly damaged" housing units. Regarding "Red" housing units, their number in Bab El Oued District alone was equal to that of all the other affected districts put together.

Dwellings classified as "Orange" in Bab El Oued District accounted for 57.8 % (1,531 units), while in the other affected districts, their total number did not reach 10 % of the building appartment stock (exclusive of Rais Hamidou District where it was 10.7 %).

It emerges from the statistics that the number of "Hard" dwellings classified as "Red" in Bab El Oued was 542 units, against 193 in the 5 other affected districts. Inversely, all the "Precarious" dwellings classified as "Red" was found only in the 5 districts. First estimates of the damage in the city of Algiers indicate an amount of some 50 billion Algerian dinars (0.67 billion US dollars).

Causes of disaster

A disaster of such a magnitude cannot have a single cause. It is definitely the result of several failures. First is lack of warning systems. This can be confirmed by the list of human casualties: most of them were not residents of the affected zones, they were non-residents. A significant number of the casualties were residents of other affected zones who came for work or school purposes. It is clear that if a warning system had been available, it would have definitely made it possible to reduce the number of casualties considerably.

Then comes the exceptionally heavy rainfall. However, it is not so much the 211 mm of rainfall in 36 hours (245 mm in 48 hours) as such but the peaks in terms of rainfall intensity which may explain what occurred. To these peaks in rainfall intensity never observed since 1935 (according to the *Office national de la météorologie, ONM* - National Meteorology Department) should be added the steep slopes of the affected zone's topography. It is also clear that the poor state of the various sewage and sanitation systems worsened the situation, but certainly not as much as what the press and the public claimed. Indeed, if the sewage and sanitation systems did not function properly as expected, it was most probably because their condition deteriorated sharply after the first heavy rainfall.

Already affected by the exceptionally heavy rains, their capacity was weakened considerably by various solid elements washed away by waters, and which blocked them (soil heaps and rubbles of all kinds, including a good amount left by people, excavated materials, building materials, refuse from demolition work, soil eroded through deforestation, remains of vehicles, of trucks, of buses, trees, power lines, electricity poles, slides caused by powerful waters).

Mud also played an aggravating role. Soil heaps torn off on the ground transformed waters into debris flows, thus multiplying approximately by two their voluminal weight, and increasing its impact on the various obstacles on their way. Another factor is the chaotic urbanization prevailing in the affected zone as a result of the local government's passiveness and laxness: citizens could and can just build any structure anywhere.

Disaster management during the event

The main bodies involved in disaster response were the National Civil Protection, the Army, the Red Crescent Society, health and sanitation departments and the security forces. The civil society also played a direct and vital role in rescue operations and in providing temporary shelters to those affected by the disaster.

The head of the government charged the governor of Algiers with the supervision of relief operations in the affected zone. However, the governor seemed to have been overwhelmed by the magnitude of the event (casualties and damage) and the resource deployment that he could not control.

As a result, lack of synchronization emerged during the relief operations, followed by total confusion lasting more than 10 days after the event. Lack of coordination also prevailed among relief teams: as a result of different orders received from different decision-makers, they took conflicting actions. It was total chaos which affected people could not understand and tolerate.

Despite the impressive deployment of resources by the National Civil Protection, the security services, the army and various government ministries, the management of a disaster – which the governor of Algiers was charged with - was characterized by blatant inefficiency.

The Army, which had been present in the affected zone since the afternoon of 10 November, mobilized more than 2,000 men equipped with heavy vehicles and tools to clear the streets of debris and reopen them. As 30 school buildings were turned into accommodation facilities for homeless families, more than 637 families were accommodated at school buildings of Bab El Oued and Bouzareah communes. It is to be noted that 24 school buildings were also damaged seriously.

Conclusions and recommendations

Even though debris flows have caused serious disasters in several mountain areas around the world, they are not fu understood yet and predicting them is not possible yet. Detailed research and studies are still required at various pla and under different conditions.

Even though the main factor that caus the Algiers disaster was climatic – exceptionally heavy rainfall of high intensity, there were several other contributing factors, some of which w unavoidable, but some others could ha been, to some extent, controlled or foreseen. The main factors at the origi the seriousness of the 10 November 2001 Algiers floods and debris flows in the residential area of Bab El Oued can be attributed to the four following main reasons, among others:

- Powerful and sporadic torrential rains on high-lying parts of the area;
- Presence of sloping sites with no vegetation cover and seriously altered by self-improvised builders;
- Chaotic urbanization (urbanized oued beds);
- Inoperative water drainage (poorly-maintained sewage systems).

Expert evaluation of the affected zone indicates 4,278 damaged housing units, including 3,421 classified as "Red" or "Orange". 80 % of structures termed "hard" account for 7.8 % (3,325 units) and are mostly in Bab El Oued District that was the most severely affected not only because of its geographic location in the entire zone but also of the condition of its building stock.

Precarious habitat was affected in the other affected districts, but in Bab El Oued it was the old structures, decayed and poorly maintained, which suffered the most from the bad weather of 10 November 2001. It would be appropriate to stress that it is not the intensity of the bad weather that caused all the damage, it is the structures' general condition and district location.

To avoid disasters of this magnitude in the future, it is important that steps are taken to ensure that structures are less vulnerable and that residents are warned of the situation by, for instance:

- Undertaking vulnerability assessment of existing structures and, when necessary, repairing and reinforcing them;
- Establishing a maintenance policy for structures of public interest;
- Establishing a framework of regulations to encourage private owners to invest in property maintenance;
- Enforcing town planning and construction codes;
- Establishing a national strategy for major risk management through a permanent body integrated in the government apparatus. ■

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DJIBOUTI: Experts, ISDR platform members discuss use of climate information

Mr. Ahmed Mohamed Madar
ISDR Focal point
Republic of Djibouti

A workshop on the « *Creation and Application of Climate Information, Products and Services for Disaster Preparedness and Sustainable Development* » took place in Djibouti on 17 February. The workshop was organized jointly by the Meteorology Department of Djibouti International Airport and the Interior and Decentralization Ministry's Disaster Management Unit.

Among many participants were the permanent secretary in the Interior Ministry ; the head of the Meteorology Division, Mr Osman Saad Said; the director of the Interior Ministry's Disaster Management Unit and national coordinator of the UN/ISDR National Platform, Mr Ahmed Mohamed Madar; and members of the UN/ISDR national platform.

The workshop was funded entirely by USAID and the World Meteorological Organization, WMO.

Use of climate information, products in various fields

During the workshop, national experts briefed participants on various consultations made in the fields of agriculture, natural disaster management and prevention, climate and health, and the role of the media.

Addressing the workshop, Mr Osman Saad Said, head of the Meteorology Division, thanked the Djibouti government, IGAD (Inter-Governmental Authority on Development – a sub-regional organization whose members are Eastern African and Horn of Africa countries) and Drought Monitoring Center – Nairobi (DMCN – now renamed IGAD Climate Prediction and Application Centre, ICPAC).

Mr Osman Saad Said went on to say that the workshop was first and foremost a platform for national experts to express and demonstrate their use of meteorological and climate information in their respective sectors of activity for disaster preparedness and management.

Meteorological activities date back to ... 1901

For its part, the Djibouti Meteorology Department (of Djibouti International Airport) informed the participants that the first meteorological activities in the country took place in 1901, adding that the national weather monitoring network of « local interest » was made up of 5 stations scattered all over the country in 1948.

Records available at the Meteorology Department show that the data were gathered by civil servants in non-coastal districts, army personnel and, sometimes, civilian volunteers (offered small allowances). However, today, thanks to the Djibouti International Airport, the Djibouti Meteorology Department has been able to make some improvements – at the expense of other sectors of application such as agriculture, hydrology, livestock breeding, health, etc.

It emerged from the workshop that the Djibouti Meteorology Department played an important role by providing all the meteorological products available in the country, namely sea weather forecasts, climatological analyses and seasonal forecasts. ■

Mr Osman Saad Said, head of the Meteorology Division, Djibouti

MADAGASCAR: ISDR National Platform contributes to cyclone damage rehabilitation

UN/ISDR Africa, ***Nairobi-Kenya***

Madagascar's newly-formed UN/ISDR National Platform has embarked on cyclone damage rehabilitation work following exceptionally serious cyclone damage experienced by the Indian Ocean island off the Mozambican coast.

In late January/early February and early March this year, cyclone-prone Madagascar was again hit, this time by two successive cyclones. UN/OCHA (Office for the Coordination of Humanitarian Affairs) said that in addition to economic losses and other material damage, cyclone Elita had left 29 people dead, 100 others injured and over 44,000 homeless from 26 January 4 February 2004; and cyclone Gafilo had left 74 people dead and over 700,000 others affected on 7 March 2004.

Initially, the main objectives of the ISDR National Platform, established in mid-July 2003 under the name of Plate-forme nationale des intervenants en gestion des risques et des catastrophes (National Platform for Disaster Risk and Disaster Management), PNIGRC, did not include disaster rehabilitation. However, the seriousness of the damage caused by the two recent cyclones prompted the platform members to take action.

Platform member CARE-Madagascar is, for instance, dealing with rehabilitation work (roads, government buildings, health infrastructures) in eastern Madagascar. Another platform member, CRS (Catholic Relief Services), is also active in the northern and western parts of the country. The Agriculture Ministry, also a member of the National Platform, is conducting a survey/ evaluation of cyclone damage on agriculture.

UN/ISDR National Platform members are still holding weekly meetings to see "who shall do what" and develop cyclone-related project proposals to be submitted to donors.

Meanwhile, prompted by the exceptionally huge cyclone damage, the Office of the President (also a member of ISDR National Platform) is examining the rapid establishment of the Bureau national de gestion des risques et des catastrophes (National Office for Disaster Risk and Disaster Management), BNGRC[2], in line with the country's Disaster Risk Management Act voted unanimously by Parliament in mid July 2003.

"The current Malagasy leadership takes disaster risk management very seriously. It really seeks to enforce - fully - the country's National Strategy for Disaster Risk Management, especially in the light of the current cyclone damage," said Mrs Gina Rakotoarimanana, UN/ISDR's focal point in the country.

On the current move to establish the Bureau national de gestion des risques et des catastrophes (National Office for Disaster Risk and Disaster Management), the ISDR National Platform asked the Office of the President to organize a one-day brainstorming session with all stakeholders to discuss the issue, before a final decision is taken.

It is to be noted that in a single year - in 2003, Madagascar developed a National Strategy for Disaster Risk Management, a Disaster Management Act, a National Plan for Disaster Risk Management and an ISDR National Platform.

Madagascar is also one of the first African countries to have incorporated disaster risk management into their Poverty Strategy Reduction Papers.[1]

[2] The BNGRC shall be "the permanent focal point for the coordination of programmes and activities related to disaster preparedness, prevention, response and reconstruction". Two other structures shall also be established : the *Conseil national pour la gestion des risques et des catastrophes* (National Council for Disaster Risk and Disaster Management) and the *Cellule des crises* (Crisis Unit).

COMOROS: ISDR national platform established

UN/ISDR Africa
Nairobi,Kenya

Volcanic eruption has been feared in the Comoros since September 2003. A UN team was dispatched. The team urged the establishment of a national platform for disaster reduction. UN/ ISDR Africa steps in…

A national workshop on *"National Capacity Building for Disaster Management and the Establishment of a UN/ISDR National Platform"* took place in the Comoran capital, Moroni, on 4 and 5 December 2003.

On the basis of a consensus reached during a previous UN mission to the Comoros, the workshop was organized by the UN System with the technical and financial support of UN/ISDR Africa.

The workshop was attended by 35 participants from the central government, authorities of the autonomous islands, the civil society, the private sector and others operating in the field of disaster coordination, prevention and management in various areas of the public and private sectors.

The previous UN mission, requested by the Comoran government and made up of OCHA (UN Office for the Coordination of Humanitarian Affairs) and WFP (World Food Programme) officials, had visited the country from 7 to 14 September 2003. It emerged from the UN mission that a UN/ISDR national platform had to be established as a focal point for disaster risk management coordination in the country.

Volcanic eruption impending…

It is to be noted that seismic crises, which had occurred since January 2003, reached their climax in August-September 2003, announcing, in some way, that a volcanic eruption was impending. This prompted the Comoran Ministry of Defence and Territorial Security to also seek the establishment of a UN/ISDR national platform for disaster reduction in a country that moreover is a disaster-prone one.

Indeed, Comoran nationals have experienced disasters caused by cyclones, threats of volcanic eruption by Karthala volcano and epidemics since the country's independence in 1975. The disasters had considerable impact on people's lives and livelihoods and on an already weak economy.

As the Comoran government, the above-mentioned UN mission and local NGOs were keen on working together and promote a synergy to enhance disaster management in the country, UN/ISDR Africa resolved to join the joint efforts. Hence the holding of the 4-5 December 2003 national workshop and the establishment of a UN/ISDR national workshop during that workshop.

Objectives of workshop, Comoros-UN efforts

The objectives of the ongoing joint efforts by the UN System and the Comoran government are to help the Comoran government to improve its capacity and skills in (1) disaster reduction coordination, (2) the provision of the necessary disaster management skills and knowledge, (3) networking with various institutions involved on disaster management.

The overall objective of the 4-5 December 2003 national workshop was to strengthen national capacities and skills in disaster prevention and response on one hand, and coordination on the other.

The workshop began with formal speeches (see Box for Comoran defence minister's closing speech), followed by a number of presentations. The first presentation, made by Mr Hamidou Soule of Karthala Observatory, was on the

Participants of the workshop

"Current Situation of Natural Hazards, Disasters and Risks in the Comoros". The second presentation, made by Maj Salimou Mohamed Amiri, was on the « Current State of, Existing Difficulties of and Future Challenges for Risk Management in the Comoros ». The third and last presentation, made by Mrs Noro Rakotondrandria of UN/ISDR Africa (based in Nairobi), was on the "International Strategy for Disaster Reduction" (ISDR).

The presentations were followed by discussions on existing gaps in disaster risk management in the the country and its causes.

Recommendations

At the end of the two-day proceedings, the participants issued the following recommendations on disaster management in general:

- To establish relevant institutions and an appropriate legal framework immediately: setting up a National Disaster Management Council.
- To develop a good national prevention policy covering relevant structures to be put in place.
- To introduce natural disaster awareness in school curricula from primary level; and resort to the muftiship, other religious structures and NIT (New Information Technologies) for natural disaster awareness among adults.
- To identify local potential and strengthen prevention, reception and handling capacities. To optimize army operations, using it for civil protection.
- To identify existing sectoral studies, update and supplement them.
- To create or strengthen regional and international partnership, and call for international cooperation to enhance infrastructures.

It is to be noted that the participants also made recommendations for four types of disaster (classical, biological, geophysical and meteorological disasters).

National Workshop

on National capacity building for disaster management and the establishment of a UN/ISDR National Platform

4-5 December 2003, Moroni, Comoros

Closing speech by

the Minister of Defence and Territorial Security, Mr. Hama Mmadi Bolero and Chairman of the National Relief Coordination of the Union of the Comoros

Your Excellency Mister the President of the Union of the Comoros,

Honourable Vice-Presidents of the Union of the Comoros,

Honourable Ministers,

Your Grace the Grand Mufti,

Dear Representatives of the Diplomatic Corps and International Organizations,

Dear Representative of the United Nations System,

Dear Representative of the Africa Office of the UN International Strategy for Disaster Reduction,

Dear Representatives of the Civil Society and NGOs,

Dear participants,

Ladies and Gentlemen,
You have been focusing for two days on Civil Protection which, as a subject, is both important and fascinating.

I remember that on 2 July this year, many of you worked hard at this same venue, the National People's Representation, on the future of the defence and security of our country, of our people and of their property. You discussed lengthily and thoroughly on a range of issues relating to the defence and security of the Union of the Comoros. And you reached the following conclusion : that the present time is critical because after 28 years of independence – with its ups and downs, the Comoran people have resolved to provide the State apparatus with a new institutional framework. You will surely agree with me that such a new institutional framework will definitely have an impact on each aspect of the country's institutional life.

You also requested for all institutions stipulated in the new Comoran Constitution to be put in place with no further delay. And you also expressed concern about the responsibilities, or rather the *kingly* duties and missions of the State: that these carrying out these duties and missions should not be delayed nor questioned, especially when questioning or discussing lengthily about them happen just to be rather fruitless.

These duties and missions I am referring to are about the defence of our common borders. These duties and missions fall very clearly under the sovereignty of the State and the security of our territory, and, as far as my Ministry is concerned, the protection of our people against natural disasters.

This workshop, which we will close within the next few minutes, is only the implementation of some proposals submitted to the Government by the above-mentioned July 2003 Seminar participants. And these proposals, the Government handed them over, without any delay, to the President of the Republic.

Ladies and Gentlemen,

So, to give concrete expression to these proposals, the Head of State gave us strict instructions to contact our partners. Then the United Nations System in the Comoros responded positively to our request for the holding of a national workshop on national capacity building for natural disaster management.

During the present workshop, commission proceedings have enabled the participants to observe that time has come to hold very serious discussions about Civil Protection. Commission N° 1 discussed on "How to prevent and prepare against natural disasters", and Commission N° 2 on "How to manage or coordinate resources so that a natural disaster situation can be handled and our people and their property protected".

To prevent and prepare against natural disasters of the *classical* type – like transport accidents and oil spills, *biological* ones like cholera epidemics, *hydrometeorological* ones like drought, fire, cyclone and flood, and *geophysical* ones like volcanic eruption, Commission N° 1 first of all identified the following shortcomings and failures : lack of appropriate legal framework, lack of sound and comprehensive sensitisation and information channels, and lack of material and human resources.

Commission N° 1 believes, and no one will deny it, that our country's nearly permanent instability, antiquated legal texts and the fact that we do not have a general prevention strategy and policy are crucial factors, if not the main causes of today's alarming situation.

To address and eradicate these shortcomings, the Commission suggests "some urgent actions for the sake of an increasingly effective disaster management", urgent actions aimed at adapting and updating some legal texts and turn them into a comprehensive and permanent institutional framework;

To be continued next page

Handing over ceremony of the workshop's recommendation to the President of the Union of Comoros, Mr. Azali Assoumani (on the right) by the Minister of Defence and Internal Security, Mr. Hama Mmadi Bolero (on the left)

developing an efficient information and sensitisation policy involving considerably the media so that the entire population, throughout the entire territory, is covered ; taking village communities' participation into account and strengthening it - as they are the first concerned – to enable them to handle some preliminary situations and inform professional relief operatives without any delay; evaluating existing means; and strengthening human, material and institutional capacities.

Ladies and Gentlemen,

Let us agree with Commission N° 1 that the first component of natural disaster prevention and preparedness is surely the development of a good national prevention policy with appropriate legal structures. The duties of such structures would be to develop a realistic coordination plan that matches available resources and strengthen our partnership at regional and international levels.

Last but not least, Commission N° 1 did not fail to stress the urgent need for close and sincere cooperation between the National Directorate of Civil Protection and all the other structures already put in place - for instance, in the fight against major disease epidemics or cyclone prevention -, as is already the case with the National Directorate of Meteorology.

Such cooperation will already enable those directly in charge to locate those areas that are likely to be affected by natural disasters, and also establish their characteristics. Such areas would be, for example, Anjouan and Moheli islands for floods, or Grande-Comore island for volcanic eruption and drought.

To these recommendations can be added the development of a coherent town planning and habitat policy against overcrowding which, in case of fire, practically prevents from reaching some homes.

Commission N° 2, for its part, examined the issue of establishing a National Platform for Natural Disaster Reduction. It is to be noted that the two Commissions identified the same factors to explain the shortcomings we are experiencing in the country in the field of natural disaster prevention and management.

For Commission N° 2, lack of sensitisation inspired by local traditions is an element to be considered when developing a national platform. Also, because of lack of human resources and a disorganised administration, the country has, for a long time, come within a hair's breadth of disaster - until the announcement of the innocently wrong alert of the Karthala volcanic eruption.

And discussing about the main components for the development of a national platform, Commission N° 2 arrived at some conclusions and recommended a number of urgent actions: that the new institutional framework be established and implemented fully; that disaster reduction awareness be introduced in school curricula - from primary level ; that religious leaders be actively involved in awareness raising activities ; that New Information Technologies be used ; that local potential and ways to strengthen prevention, reception and handling capacities be identified ; and that army operations be optimised in line with Civil Protection. All these actions will definitely enhance our natural disaster prevention and management capacities.

This can also be supplemented by the establishment of a National Council for Natural Disaster Management whose duty is to coordinate the work of local networks of medical doctors, rescuers, relief assistance structures, etc.

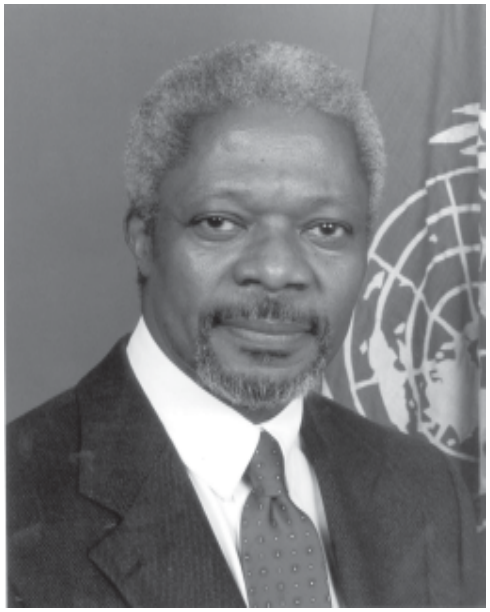
Ladies and Gentlemen,

Your report will be handed over immediately to the Head of State under the patronage of whom this workshop has been organized. And formal contacts will be made with our partners, especially the United Nations System to whom we wish to express our warm thanks for its active cooperation. The Ministry of Defence and Territorial Security, for its part, will submit to the Government a package of proposals that match your recommendations.

Before ending my address, I wish to thank the participants for the excellent work done. I also wish to thank the entire international community, especially the United Nations System, for their priceless contribution.

Now, Ladies and Gentlemen, I wish to declare the proceedings of this first workshop on capacity building for natural disaster management closed. Thank you for your attention.

THE UN SECRETARY-GENERAL MESSAGE FOR THE WORLD WATER DAY 22 March 2004



Mr. Koffi Annan
Secretary General
United Nations

The theme of this year's observance of World Water Day is *"Water and Disasters: Be informed and be prepared"*. Water-related disasters – including floods, droughts, hurricanes, typhoons and tropical cyclones – inflict a terrible toll on human life and property, affecting millions of people and provoking crippling economic losses. As ever, it is the poor and vulnerable who are most adversely affected, but as we saw in Central Europe in 2002, even industrialized nations can suffer immensely. However much we would wish to think of these as strictly natural disasters, human activities play a significant role in increasing risk and vulnerability. And of course, there are also strictly man-made disasters, such as oil-spills and toxic run-off, that do great damage to our precious water resources.

Modern society has distinct advantages over those civilizations of the past that suffered or even collapsed for reasons linked to water. We have great knowledge, and the capacity to disperse that knowledge to the remotest places on earth. We are also the beneficiaries of scientific leaps that have improved weather forecasting, agricultural practices, natural resources management, and disaster prevention, preparedness and management. New technologies will continue to provide the backbone of our efforts. But only a rational and informed political, social and cultural response — and public participation in all stages of the disaster management cycle — can reduce disaster vulnerability, and ensure that hazards do not turn into unmanageable disasters.

This year's observance of World Water Day also marks the publication of *Guidelines for reducing flood losses*. A manual and menu of options for decision-makers, the guidelines are a joint effort of the UN Department of Economic and Social Affairs, the National Weather Service of the United States National Oceanic and Atmospheric Administration, the UN International Strategy for Disaster Reduction, the UN Economic and Social Commission for Asia and the Pacific and the World Meteorological Organization, with support from the Swiss Agency for Development and Cooperation. They are also meant to contribute to the discussions at the next World Conference on Disaster Reduction to be held at Kobe-Hyogo, Japan in January 2005. I commend them to all interested actors.

Beyond water-related disaster reduction issues, the international community has taken other steps to face global water problems. In the year 2000, Heads of State pledged to stop the unsustainable exploitation of water resources by developing water management strategies that promote equitable access and adequate supplies. At the World Summit on Sustainable Development in 2002, world leaders agreed to develop integrated water resources management and water efficiency plans by 2005.

The international response to current world water challenges contains much admirable effort, but for the most part it has been inadequate. If we are to achieve the Millennium Development Goal of halving, by 2015, the proportion of people who are unable to reach or to afford safe drinking water, we will need to make 270,000 new water connections per day. The requirements for meeting the sanitation goal are even more formidable. This is not to demean the dedicated efforts being made by a number of governments and thousands of civil society groups, but rather to demonstrate the urgent need to go beyond business as usual.

With that in mind, I have decided to establish an Advisory Board on Water and Sanitation. To be chaired by Former Prime Minister Ryutaro Hashimoto, the Board will also include a wide range of eminent persons, technical experts, and other individuals with proven experience in inspiring people, moving the machinery of government, and working with the media, the private sector and civil society. I have asked the Board to use the unique expertise of its members to raise awareness of water and sanitation issues, to help mobilize funds for water and sanitation projects, and to encourage new partnerships.

Water is central to our hopes of eradicating poverty and achieving sustainable development. On World Water day, let us renew our efforts to give water issues the attention they deserve, now and over the long term.

ZIMBABWE: "UN Guidelines for Reducing Floods" launched in Harare

R. A. Valency
Editor
ISDR Informs - Africa

The "UN Guidelines for Reducing Flood Losses" was launched in the Zimbabwean capital, Harare, on 22 March.

Harare was one of four cities - with New York, Geneva and Bangkok - and the only one in Africa where the launch took place.

The launch of the publication coincided with worldwide celebrations of World Water Day which, this year, specifically focused on water and disasters.

The Guidelines, which are made up of three books, are a result of a series of consultations led by the UN Department of Economic and Social Affairs (DESA) and the US National Oceanic and Atmospheric Administration (NOAA), drawing on the experience of various partners, experts and contributors.

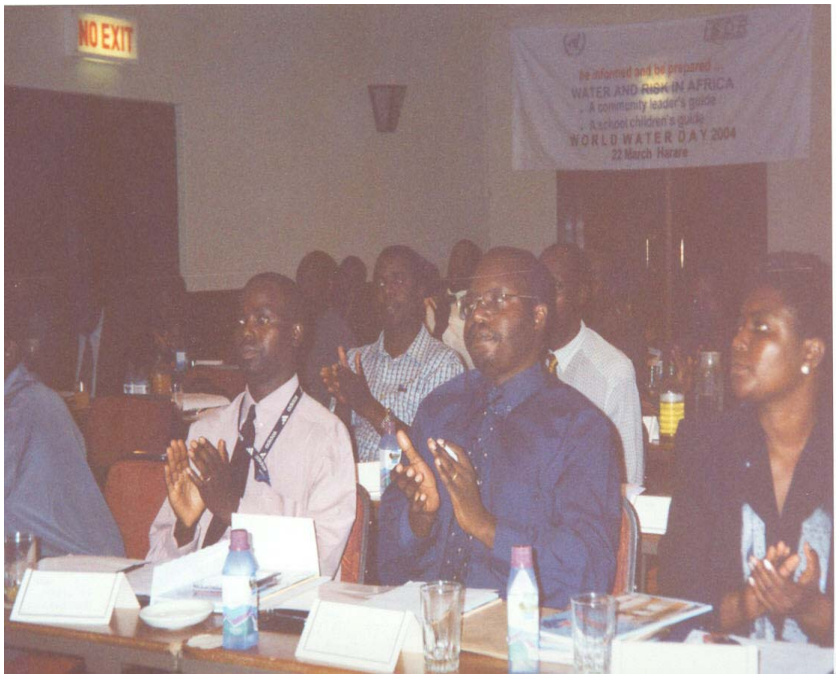
During the same function, UN/ISDR Africa also launched two educational booklets entitled "Water and Risk in Africa – A Guide for Community Leaders" and "Water and Risk in Africa – A School Guide".

In his address during the launch of the UN publication, Zimbabwean Deputy Minister of Rural Resources and Water Development Mr Tinos Rusere said it was an honour for Zimbabwe to be selected for the launch *(see Mr Tinos Rusere's full speech on page 35)*.

In her address, UN/ISDR Africa Programme Officer Mrs Noro Rakotondrandria said Harare had been selected (1) because Zimbabwe was, in Africa, one of the countries affected by drought and floods; (2) because disasters are often a matter of life and death, and therefore they just call for human solidarity; and (3) because a regional institution called "Drought Monitoring Centre", DMC, was based in Harare. In fact, the launching ceremony was organized by DMC with assistance from UN/ISDR Africa.

After the launching ceremony, a workshop aimed at developing a national strategy for flood management was held, during which the "UN Guidelines for Reducing Flood Losses" were also discussed.

The launch was the leading news item in Zimbabwe's state-owned TV's evening bulletin the same day.



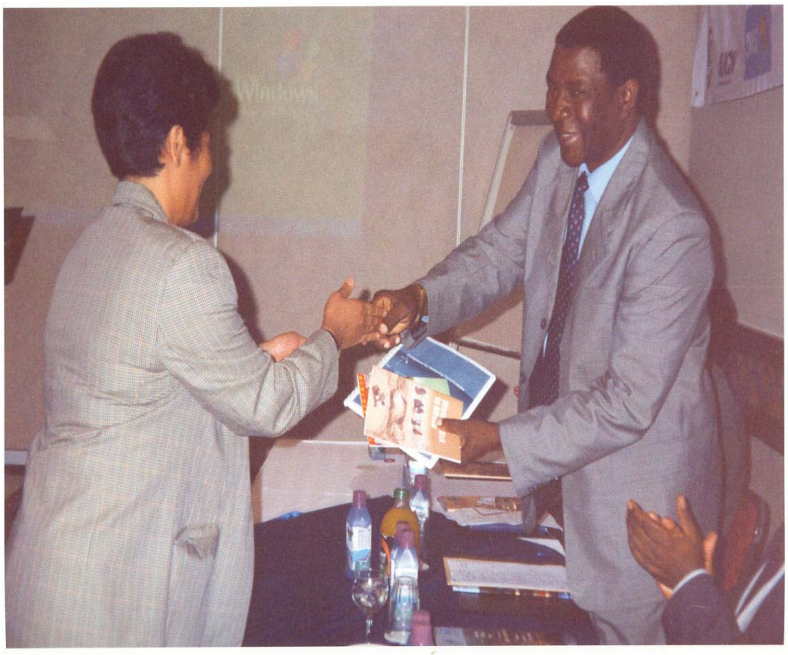
WORLD WATER DAY 2004
HARARE, ZIMBABWE

SPEECH BY THE DEPUTY MINISTER
MINISTRY OF RURAL RESOURCES AND WATER DEVELOPMENT

This year's World Water Day theme, "Water and Disasters: *Be Informed and Be Prepared"*, highlights a very important issue in Zimbabwe at the moment.

Zimbabwe has suffered some of the worst droughts ever in its history particularly in the past decade. These disasters have impacted on us as a nation economically, socially and have caused great damage to the environment. Agriculture, the backbone of our economy depends heavily on water and any losses in crop yields or livestock production are a blow to the economy. The ripple effects of drought are immense and affect even the local retailers who supply farmers. The environment has been at great risk from drought. Plants, animals and their habitats, and air and water quality, are all affected by drought. Land can become degraded and the soil eroded. Droughts also have an impact over human kind socially as they tend to lead to conflict among water users and migration, as people flee drought to find areas with more food and water.

Fresh in our minds from the current media reports are the floods that have been predicted in Muzarabani and the Lowvield area. Floods have threatened human life and property and have cost the nation billions of dollars in repairs and disaster management. In recent years, Cyclone Eline caused severe damage in the Chipinge and Muzarabani areas. A combination of dry spells and severe floods, which led to a disruption of farming activities between 1999 and 2001, left Southern Africa with meager food reserves resulting in several of the region's countries being faced with food shortages.



Mr. Tinos Rusere, Deputy Minister, Ministry of Rural Resources and Water Development and Mrs. Noroarisoa Rakotondrandria (UN/ISDR Africa) during the launching of UN guildelines on Floods Management and UN/ISDR Africa's booklets on Water and Risk (for community leaders and school chidren)

It is important therefore, to improve our early warning systems that combine predictions of weather with water-related events paving way for a truly integrated approach. Forecasting also needs to be a co-operative multi-disciplinary effort. The many issues involved mean that hydrologists, meteorologists, rural and urban planners and the Civil Protection Unit have to join forces to use available integrated methods and technologies in flood and drought forecasting and warning. It is also important to utilize computer models, remote information about the weather and environment, and in this regard, academic institutions play an important role.

Other forms of water-related disasters include industrial accidents. These can be accidental discharges of concentrated chemicals or mixtures of chemicals and water. Some of the discharges can be deliberate. Such discharges affect the water quality downstream. One of the prime preventive measures against this kind of pollution is a strong legal framework governing safety and the

punishment of offenders. Planning of preventive measures should involve a number of players including the police, the Civil Protection Unit, public health officials, environmental professionals and the media.

Climate change is a monumental challenge to human adaptability. Shifts in global climate may have triggered some of the extreme weather we are now experiencing such as more frequent and severe floods and droughts. It is important in this regard therefore to develop an integrated approach in understanding these trends and help in reducing disasters.

As we commemorate this day, it is important for everyone to realize the importance of preparedness in dealing with disasters. As a nation we should look into planning ahead in terms of managing disasters and into planning ahead in terms of managing disasters and into issues of food security. Of note, countries in the SADC region have developed an early warning system, which monitors the crop and food situation and issues alerts during periods of impending crisis. It is important for us as a country to also strengthen such networks, as they can be the backbone for disaster contingency planning and coordinated plans for dealing with disasters.

I am reliably informed that this meeting is looking at spearheading the development of disaster management strategies, which are aimed at reducing the vulnerability and exposure of human beings to these disasters. Such strategies should encourage better coordination of activities from different players. In the case of drought, these strategies should look into basic water management strategies. These plans should also encourage improved water efficiency. It is important to have drought mitigation measures and relief, as these will minimize the impact on production systems and livelihoods.

Reducing the risk of water-related hazards means, on the one hand, developing our capacity to monitor their magnitude, duration, timing and location and on the other, assessing and reducing our vulnerability to them. Tackling vulnerability is the real key to reducing risk.

I am happy to note that in this workshop we have several Government ministers represented. We also have the Zimbabwe National Water Authority, the Civil Protection Unit, several NGOs working in disaster management and water issues, officials from SADC Drought Monitoring Center and academic institutions. Such representation sets a good platform for discussing the development of disaster management strategies, as there are diverse skills and experiences.

I would like to thank the United Nations International Strategy for Disaster Reduction Africa office who have come over all the way from Nairobi to launch 3 books with guidelines for reducing flood losses. These books are also being launched by the U.N. simultaneously in Geneva, New York and Bangkok, on the occasion of World Water Day, 22 March 2004. This means that Harare is one of the 4 cities of the world and the only one in Africa where this launch is taking place, which is indeed an honour. These books will go a long way in improving our planning and as vital sources of information on water-related disaster management.

I would also like to thank the Zimbabwe Chapter of the Global Water Partnership, the SADC Drought Monitoring Centre, and the Zimbabwe National Water Authority for organizing this workshop in conjunction with my Ministry. We do appreciate this support and we look forward to future collaboration.

Finally, I would also want to thank the United Nations International Strategy for Disaster Reduction Africa office and the Zimbabwe Chapter of the Global Water Partnership for funding the workshop.

Thank you all for coming and we look forward to mitigating water-related disasters in a more coordinated way. ■

17th United Nations Sasakawa Award for Disaster Reduction

Selection Process 2004

Join us in rewarding individuals and institutions from around the world who contributed, through innovative practices and outstanding initiatives, to reducing the risk and vulnerabilities of communities to natural hazards !

Closing date for nominations
18 August 2004

Provided through an endowment from the Nippon Foundation to the United Nations

For more information please visit:
www.unisdr.org - www.eird.org -
www.unisdrafrica.org

The United Nations Sasakawa Award for Disaster Reduction is worth approximately US$ 50,000 to be shared among the Sasakawa Laureate and recipients of Certificates of Distinction and of Merit. It is presented annually on the occasion of the International Day for Disaster Reduction, every second Wednesday of October. The Sasakawa Ceremony will be held this year on Wednesday 13 October 2004.

Eligibility for the Award

The candidate shall have distinguished herself/himself through outstanding and internationally recognized action in the following fields:
a) The implementation, at international or regional level, of activities designed to strengthen people's awareness of natural disasters;
b) The launching of scientific activities contributing to technological innovation facilitating disaster prediction;
c) The launching of scientific or social activities contributing to the strengthening of disaster prevention and preparedness;
d) The promotion of preventative activities which reduce the economic impact of disasters and contribute to sustainable development;
e) Any other activities recognized as essential in promoting disaster prevention and mitigation (land-use planning, seismic risk reduction, awareness-raising, education etc..)
The candidate shall not be subjected to any kind of discrimination on the grounds of nationality, religion, race, sex or age.

No candidate may nominate herself/himself. Past recipients cannot be renominated.

Nomination of Candidates for the Award

Proposals shall be made to the Administrator of the Award, who will submit them to the Jury, together with his/her comments. The Administrator may seek independent reports on the work carried out by candidates for the Award, which shall be submitted, when appropriate, by the Administrator for the consideration of the Jury.
Once nominated, candidates are requested to provide a Power Point presentation in English (10-15 minutes) with details of their work and contribution to reducing risk and vulnerability to natural and technological hazards.

Selection of the Laureate(s) and recipients of Certificates

An international Jury, composed by experts from different continents, will vote in a private meeting, on the basis of well-defined criteria, to identify and select the Laureate of the UN Sasakawa Award for Disaster Reduction. Since 1998, Certificates of Distinction and Certificates of Merit have been created to reward valuable contributions to disaster reduction. The Jury may however decide not to designate any laureate, if it so wishes. The current Jury is composed by representatives from each of the following regions: Africa, Asia, Latin America and the Caribbean, Europe and Oceania.

Nomination Forms

Once nominated, candidates should complete the attached nomination form for the 17th UN Sasakawa Award for Disaster Reduction 2003, and forward it by 18 August 2004 together with the requested detailed information in support of the nomination, to the ISDR Secretariat.

Nominations of candidates can be made by the…

1. Former Sasakawa Award Laureates;
2. Representatives of institutions specializing in disaster reduction;
3. UN specialized agencies;
4. Resident Coordinators of the UN System;
5. Permanent Missions to the United Nations Offices in New York, Geneva and Vienna.

Please note that applications received after the deadline will not be considered.

All nomination forms should be sent to:

Inter-Agency Secretariat of the International Strategy for Disaster Reduction (UN/ISDR)
Administrator of the UN Sasakawa Award for Disaster Reduction
Palais des Nations, 8-14 Avenue de la Paix, CH-1211 Geneva 10
Tel: (+41).(0)22. 917.27.86 / Fax: (+41).(0)22. 917.05.63 / E-mail: rosec@un.org
Websites: www.unisdr.org - www.eird.org - www.unisdrafrica.org

17th United Nations Sasakawa Award for Disaster Reduction

Nomination Form 2004

No candidate may nominate herself / himself
Past recipients cannot be renominated

PART I: FOR INDIVIDUALS (please attach a Curriculum Vitae)

Name:_____

Address:_____

Nationality:_____

Date and place of birth:_____

Gender: ___Female ___ Male

Qualifications: Give details in chronological order, starting with the most recent qualification

Date: Institution: Qualifications obtained:

_____ _____ _____

_____ _____ _____

Present position:_____

Current job description:_____

Previous positions held (in chronological order, starting with the first position held)

Date Position held and mandate:

_____ _____

_____ _____

PART II: FOR INSTITUTIONS / ORGANIZATIONS (Please give succinct information)

Name and address of Headquarters:_____

_____

Date of Creation:_____

Main fields of activity:_____

Size and structure (if applicable):_____

Optional: Funding (annual budget and sources of income):_____

_____

Name and title of chief executive officer:

_____

_____

PART III: SPECIAL ACHIEVEMENTS

Please give details of outstanding innovative work in the field of disaster reduction and mitigation which would qualify the candidate for the Award, in particular with regard to:

Section 1: General disaster reduction activities carried out to reduce the socio economic impact of disasters and to contribute to sustainable development:

_____

_____

Section 2: The implementation, at the international or regional level, of activities designed to strengthen peoples' awareness of natural disasters:

_____

_____

Section 3: Achievements in disaster reduction and mitigation in developing countries (if any):

_____

_____

Section 4: The introduction of scientific activities and any technological innovation contributing to improved disaster forecasting:

_____

_____

Section 5: The promotion of social activities contributing to the strengthening of disaster reduction and mitigation:

_____

_____

Section 6: Other activities recognized as essential in promoting disaster reduction and mitigation:

_____

_____

PART IV: PROPOSAL FOR THE USE OF THE AWARD MONEY

Please give details on the use to be made of the Award money for further development, improvement and promotion of disaster reduction activities:

_____

_____

A questionnaire on the use of the Award money will be sent around to all Sasakawa Laureates to evaluate to what extent this financial assistance has contributed to implementing the disaster reduction activities planned under this item, and facilitated the advancement of a global culture of prevention.

PART V: DOCUMENTATION

Please list and attach supporting documents and information material relating to the work carried out in disaster reduction, such as constitution, charter, membership list, including sample of types of litterature published, last annual reports and press articles - To facilitate the consideration of the nomination by the Jury, please kindly provide as much as possible information in English.

_____

_____

PART VI: REFERENCES

Please list three persons /institutions who are familiar with your activities:

	Full Name	Full address	Business or occupation
1)	_____	_____	_____
2)	_____	_____	_____
3)	_____	_____	_____

Separate nomination papers respecting the above format with comprehensive and detailed information will be accepted.

Submitted by:_____

Date of submission:_____

Date of receipt by ISDR:_____

Deadline for submission: 18 August 2004

Please note that applications received after the deadline will not be considered

Inter-Agency Secretariat of the International Strategy for Disaster Reduction (UN/ISDR)
Administrator of the UN Sasakawa Award for Disaster Reduction
Palais des Nations, 8-14 Avenue de la Paix, CH-1211 Geneva 10
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Websites: www.unisdr.org - www.eird.org - www.unisdrafrica.org

First Announcement

World Conference on Disaster Reduction

18-22 January 2005
Kobe, Hyogo, Japan

A safer world for all

A milestone event to

increase the international profile of disaster risk reduction

promote integration of disaster risk reduction into development planning and practice

strengthen local and national capacities to address the causes of disasters that continue to devastate and impede the development of many countries.

A set of specific goals, activities and policy measures for implementation 2005-2015 will be presented for consideration and adoption, drawing on a review of the past decade's progress with the Yokohama Strategy and Plan of Action for a Safer World that was adopted at the first world conference on the subject held at Yokohama, May 1994, during the International Decade for Natural Disaster Reduction (IDNDR)

Why the World Conference on Disaster Reduction?

While commitment to the reduction of disasters has been growing – demonstrated through several existing international initiatives, agreements and declarations – actual materialization is still slow. Disaster impacts are increasing and remain a major obstacle to development. New risks are emerging. In some cases development itself is contributing to growing risks.

A detailed review of the achievements, gaps and critical challenges facing the international community since the adoption of the Yokohama Strategy and Plan of Action of 1994 is presently underway, with numerous international, national and local policies, initiatives, scientific and technical achievements demonstrating the feasibility and worth of investment in risk reduction. Emerging issues and opportunities related to environmental and climate change, pandemics such as HIV/AIDS, gender balance and education are also coming to the fore of public attention.

Much remains however to be done to coordinate and strengthen further these movements and integrate them into effective national policies. A shift in focus from relief to sustainable development is occurring. The current situation calls for an international meeting that brings together local, national and international policymakers active in social and economic development and environmental management issues, disaster risk managers and practitioners, as well as civil society and community groups. The conclusion of the Yokohama review coinciding with the 10th Anniversary of the Great Hanshin-Awaji Earthquake in addition to the Government of Japan's offer to host the Conference in the city of Kobe-Hyogo, provides the ideal occasion and setting for the event.

The World Conference on Disaster Reduction is expected to motivate and guide governments and their policymakers to pay more attention, identifying practical and concrete ways to incorporate disaster risk reduction into poverty reduction.

The Conference will build on the findings of the review of implementation of the Yokohama Strategy and Plan of Action, aiming at:

- Assessing achievements and identifying good practices since its adoption in 1994;
- Defining the remaining challenges, critical needs and opportunities in disaster reduction initiatives worldwide, and to examine emerging issues;
- Developing elements for an articulated programme for disaster risk reduction to implement the relevant Millennium Development Goals (MDGs) and objectives of the Johannesburg Plan of Implementation for sustainable development.

The Conference will also raise awareness of the urgency to focus on the vulnerable, taking into account community needs to address disaster risk, as well as emphasize policy development and action at global, regional, national and local levels for the development of a culture of prevention.

Objectives of WCDR

The UN General Assembly adopted resolution A/RES/58/214 on 23 December 2003, stating the Conference objectives as follows:

(a) To conclude and report on the review of the Yokohama Strategy and its Plan of Action, with a view to updating the guiding framework on disaster reduction for the twenty-first century;

(b) To identify specific activities aimed at ensuring the implementation of relevant provisions of the Johannesburg Plan of Implementation of the World Summit on Sustainable Development[1] on vulnerability, risk assessment and disaster management;

(c) To share best practices and lessons learned to further disaster reduction within the context of attaining sustainable development, and to identify gaps and challenges;

Expected outcome of the Conference

- Increased awareness, recognition and political endorsement for implementing of disaster risk reduction and mobilizing local, national and international resources.

- Clearer directions and priorities for action at international, regional, national and local levels to ensure implementation of the International Strategy for Disaster Reduction and to support the achievement of the Millennium Development Goals and the objectives of the Johannesburg Plan of Implementation[2].

Yokohama Strategy and Plan of Action

The 'Yokohama Strategy and Plan of Action for a Safer World' was adopted at the World Conference on Natural Disaster Reduction (May 1994, Yokohama, Japan), as the main outcome of the mid-term review of the International Decade of Natural Disaster Reduction (IDNDR).

Principles of the Yokohama Strategy

1. Risk assessment is a required step for the adoption of adequate and successful disaster reduction policies and measures.
2. Disaster prevention and preparedness are of primary importance in reducing the need for disaster relief.
3. Disaster prevention and preparedness should be considered integral aspects of development policy and planning at national, regional, bilateral, multilateral and international levels.
4. The development and strengthening of capacities to prevent, reduce and mitigate disasters is a top priority area.
5. Early warnings of impending disasters and their effective dissemination using telecommunications, including broadcast services, are key factors to successful disaster prevention and preparedness.
6. Preventive measures are most effective when they involve participation at all levels, from the local community through the national government to the regional and international level.
7. Vulnerability can be reduced by the application of proper design and patterns of development focused on target groups, by appropriate education and training of the whole community.
8. The international community accepts the need to share the necessary technology to prevent, reduce and mitigate disaster; this should be made freely available and in a timely manner as an integral part of technical cooperation.
9. Environmental protection as a component of sustainable development consistent with poverty alleviation is imperative in the prevention and mitigation of natural disasters.
10. Each country bears the primary responsibility for protecting its people, infrastructure, and other national assets from the impact of natural disasters. The international community should demonstrate strong political determination required to mobilize adequate and make efficient use of existing resources, in the field of natural disaster reduction, bearing in mind the needs of the developing countries, particularly the least developed countries.

Preparatory process

A comprehensive preparatory process will help ensure the successful outcome of the Conference. The ISDR Secretariat will serve as the secretariat of the Conference and will coordinate preparatory activities, in close cooperation with Japan as the host country and with the Bureau of the Preparatory Committee for the Conference, and with the support of relevant departments of the United Nations Secretariat.

Member States, United Nations bodies and specialized agencies and other relevant intergovernmental agencies and organizations, particularly the members of the Inter-Agency Task Force on Disaster Reduction (IATF/DR), will participate actively in the Conference, and its preparatory process.

The preparation of the Conference will be supported by the following mechanisms:

- Two open-ended inter-governmental preparatory committee meetings, to be held in association with meetings of the IATF/DR in May and October 2004, and conducted by a bureau consisting of five representatives of Member States elected on the basis of equitable geographical representation to discuss specific conference outcomes

- The Inter-Agency Task Force on Disaster Reduction will provide additional guidance on the content and the preparation of the Conference and the coordination of the participation and engagement of its members.

- A working group under the IATF/DR will act as an organizing and advising committee to the Secretariat. It will be composed of those organizations directly involved in the preparations of the Conference. Potential members include UNESCO, UNU, UNDP, WMO, IFRC, OCHA, DESA, UNCRD among others. Some consultations and meetings of this working group may be conducted electronically before IATF/DR and Preparatory Committee meetings and on other relevant occasions, as needed.

The IATF/DR working group will provide specific advice and guidance on organizational and substantive work of the Conference. Additional expertise and further guidance will be sought through wide consultation to engage/involve representatives from various sectors and levels in different disaster prone regions of the world. The possibility of a high-level personality to increase the profile of the Conference is currently being discussed with the Office of the UN Secretary-General.

Why Hyogo, Japan?

On 17 January 1995 the Great Hanshin-Awaji earthquake struck the Hyogo prefecture, including the City of Kobe (population 1.5 million), resulting in thousands of fatalities. It was the first major earthquake in a large city in a developed country in recent history. The people of the city of Kobe as well as the Hyogo Prefecture will commemorate the tenth anniversary of the tragedy on 17 January 2005.

Located on the Pacific Ring of Fire, Japan has a long history of living with geological hazards such as earthquakes. Heavy snow in the northern parts in the winter, and frequent tropical storms or typhoons approaching from the south are but a few examples of hydrological hazards in Japan.

Regional Meetings

2003

1 First Asian consultation, (Government of Japan, ADRC, Kobe-Hyogo, Japan, 17 January

2 Pacific Regional consultation (SOPAC), Fiji, 5-7 May

3 Safer Sustainable Communities 2003 Australian Disaster Conference (EMA), Canberra, 10-12 September

4 Euro-Mediterranean consultations (Council of Europe, Spain), Madrid, Spain, 6-8 October

5 Forum Mitch+5 (CEPREDENAC, UNDP, COPECO), Tegucigalpa, Honduras, 9-11 December

2004

6 Third Asian consultation (Governments of Cambodia and Japan, ADRC), Cambodia, 4-6 February

7 Third Asian Consultative Meeting of Regional Organizations and Regional Offices of UN Agencies, (WHO/WPRO, ADPC), Manila, Philippines, 24-26 February

8 EUR-OPA (Council of Europe), Rabat, Morocco, 11-13 March

9 Third Asian consultation during 4th meeting of Consultative Committee on Regional Cooperation in Disaster Management (ADPC and Government of Bangladesh), Dhaka, Bangladesh, 29-31 March

10 Third Southeast Asia Disaster Management Practitioners Forum, (ADPC, UNESCAP, ECHO, IFRC-SE ASIA), Bangkok, Thailand, 26-29 April

11 International Conference on Disaster Reduction in Central Asia (Government of China), Beijing, China, 25-27 May

12 African consultation, (UNDP, AU/NEPAD), Johannesburg, South Africa, 2-4 June

13 International Seminar on Risk Reductions following the Bam Earthquake, Iran, June/July

14 Caribbean consultation, (UWI, CDERA) October

15 Second Meeting of ASEAN Committee on Disaster Management, Phnom Penh, Cambodia, November

For more information contact:

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Outline for national reporting and information on disaster reduction

The Yokohama Strategy and Plan of Action was adopted at the World Conference on Natural Disasters, held in 1994 as a mid-review of the progress during the International Decade on Natural Disaster Reduction (IDNDR, 1990-1999).

As the successor of the IDNDR, the Secretariat of the International Strategy for Disaster Reduction (UN/ISDR) coordinated a global review of disaster reduction initiatives, "Living with Risk", published in 2002.

National authorities and platforms on disaster reduction are invited to provide information for the preparatory process for the World Conference on Disaster Reduction in 2005. This information will be used to identify needs and future policy recommendations to be adopted at the Conference.

The preparation of this information provides an opportunity to bring together national stakeholders from Government, academic and other sectors dealing with disaster risk reduction.

Therefore we encourage consultations with institutions specializing in disaster management, environmental planning, education, meteorological services, key NGOs and other key domains.

If a national platform or network for disaster reduction does not already exist in your country, this might be the time to call for such a mechanisms (ad-hoc or formalized). For more information on national platforms for disaster reduction, contact Mr. Haris Sanahuja at the ISDR Secretariat (sanahuja@un.org).

Deadline for receiving inputs at UN/ISDR: 15 June 2004. Later submissions will also be made available at the Conference, but will not form part of the proposed policy recommendations.

Information provided will be utilized by ISDR for various information products, including in the website as country information. Therefore, please indicate if any information is of restricted nature.

How to use these guidelines to prepare your national information

For each section, please indicate *current status, main difficulties* or *gaps* encountered, and *challenges for the future*:

1. ***Political Commitment and Institutional Aspects***
2. ***Risk Identification (including early warning)***
3. ***Knowledge Management (education, research, information, public awareness)***
4. ***Risk Management Applications/Instruments (technical, social, financial, environmental)***
5. ***Preparedness and Contingency Planning***
6. ***Good practices in disaster risk management***
7. ***Priorities to address at WCDR***

Use the explanations and questions for each heading provided below as a guide for your contribution. If no information is available, leave the questions unanswered marked as N/A. Short answers and analyses are encouraged. When applicable, please indicate any relevant documentation or other sources of information on the subject.

(For additional details, see the *"Framework for Guiding and Monitoring Disaster Risk Reduction"* http://www.unisdr.org/dialogue/basicdocument.htm) or contact the ISDR Secretariat.

Please provide your information if possible by electronic means to the ISDR Secretariat c/o Mr. Haris Sanahuja (sanahuja@un.org, tel: +41-22-917 2808) and Ms. Christel Rose (rosec@un.org, tel: +41-22-9172786 or by fax to: ISDR Secretariat, United Nations, Palais des Nations, CH-1211 Geneva, Switzerland

In Africa, please contact the UN/ISDR Office in Nairobi, Kenya, for more information: Tel.: +254 20 62 45 68 - Fax: +254 20 62 47 26 - E-mail <ISDR-Africa@unep.org>

Reference Guide for Preparation of national Information

Component 1 Political Commitment and Institutional Aspects

Political commitment, strong institutions, and good governance are expected to elevate disaster risk reduction as a policy priority, allocate the necessary resources for it, enforce its implementation and assign accountability for failures, as well as facilitate participation from civil society to private sector. Due to its multi-disciplinary and multi-sectoral nature, disaster reduction falls into the agenda of many diverse institutions which, for effective implementation, requires clear assignment of roles and assumption of responsibilities as well as coordination of activities.

1.1- Are there national policy, strategy and legislation addressing disaster risk reduction? If yes, please describe to what extent current national efforts and main priority areas of the policy, and mechanisms to enforce the implementation of the policy and legislation are applied (*and/or attach any relevant documentation*

1.2- Is there a national body for multi-sectoral coordination and collaboration in disaster risk reduction, which includes ministries in charge of water resource management, agriculture/land use and planning, health, environment, education, development planning and finance? If yes, please give detailed information (name, structure and functions). *Attach any relevant documentation or indicate source of information.*

1.3- Are there sectoral plans or initiatives that incorporate risk reduction concepts into each respective development area (such as water resource management, poverty alleviation, climate change adaptation, education and development planning)? If yes, please indicate some examples and challenges / limitations encountered. If no, does your government have any plans for integrating disaster risk reduction into development sectors? If no, please also specify the major difficulties.

1.4- Is disaster risk reduction incorporated into your national plan for the implementation of the UN Millennium Development Goals (MDGs), Poverty Reduction Strategy Paper (PRSP), National Adaptation Plans of Action, National Environmental Action Plans and WSSD (World Summit on Sustainable Development) Johannesburg Plan of Implementation? If yes to any of these, who are the main contacts for these initiatives.

1.5- Does your country have building codes of practice and standards in place, which takes into account seismic risk? If yes, since when. Which are the main difficulties in keeping with the compliances of the codes.

1.6- Do you have an annual budget for disaster risk reduction? If yes, is this commitment represented as part of the national budget or project based? Through which institution/s? If no, what other financing mechanisms for risk reduction initiatives are available?

1.7- Are the private sector, civil society, NGOs, academia and media participating in disaster risk reduction efforts? If yes, how? Indicate existing coordination or joint programming between government and civil society efforts in disaster risk reduction, or major difficulties or constraints for this to be effective.

Component 2 Risk Identification

Identification of risks is a relatively well-defined area with a significant knowledge base on methods for disaster impact and hazard and vulnerability assessment. Systematic assessment of losses, social and economic impact of disasters, and particularly mapping of risks are fundamental to understand where to take action. Consideration of disaster risks in environmental impact assessments is still to become routine practice. Early warning is increasingly defined as a means to inform public and authorities on impending risks, hence essential for timely actions to reduce their impact.

1.1- Has your country carried out hazard mapping/assessment? If yes, please describe for which hazards, when they were updated and for what geographical scale they exist. Do they include characteristics, impacts, historical data, multi-hazards approach? Which institutions are using the results of the hazard assessment? To whom are they available? (*attach any relevant documentation)*

1.2- Has your country carried out vulnerability and capacity assessments? If yes, please describe the methods used and major social, economic, physical, environmental, political and cultural factors considered in the assessment(s). Who are the main contacts for these assessments (*or attach any relevant documentation or contact information.)*

1.3- Does your country have any mechanisms for risk monitoring and risk mapping? If yes, who is responsible?

1.4- Is there a systematic socio-economic and environmental impact and loss analysis in your country after each major disaster? If yes, are the results available?

1.5- Are there early warning systems in place? If yes, for what hazards and for what geographical scope. Do you have any example when the system was activated lately? Which are the main institutions involved? Please indicate any relevant lessons-learnt from the use and public reaction to early warnings issued.

Component 3 Knowledge Management

Information management and communication, education and training, public awareness and research are all parts of improving and managing knowledge on disaster risks and their reduction. Inclusion of disaster reduction at all levels of education, effective public awareness and information campaigns, media involvement in advocacy and dissemination, availability of training for communities at risk and professional staff, and targeted research are the ingredients to support the knowledge base for effective disaster reduction.

1.1- Does your country have disaster risk information management systems (governmental and/or non-governmental)? If yes, what kind of information on disaster reduction is available, how is it collected, how is the information disseminated and who are the main users? (indicate relevant sources of information, if applicable)

1.2- Are the academic and research communities in the country linked to national or local institutions dealing with disaster reduction? If yes, please describe the mechanisms for information sharing and indicate any example of usefulness and effectiveness. Which are the main research and academic institutions dealing with disaster reduction related issues (please list, if available, and indicate how their research work is related to the country's disaster risk reduction needs.)

1.3- Are there educational programmes related to disaster risk reduction in your public school system? If yes, for what age-range? Do you have any educational material developed to support the teachers in this area? *(please attach any relevant documentation)*

1.4- Are there any training programmes available? If yes, please list (if available indicate scope and target audiences of the courses). Do you have any indication on how these courses have been useful to change any practices at local or national scale?

1.5- What kind of traditional indigenous knowledge and wisdom is used in disaster-related practices or training programmes on disaster risk reduction in your country?

1.6- Do you have any national public awareness programmes or campaigns on disaster risk reduction? If available, who are the main players for raising public awareness? How are the mass media and schools involved? Who are the targeted groups and how do you evaluate the programmes?

Component 4 Risk Management Applications/Instruments

For effective disaster risk reduction, synergies are needed between sustainable development and disaster risk management practices. Moving from analyzing of and knowing about risks to taking concrete actions to reduce their impacts is a demanding step. Ideas and practices coming from different disciplinary areas will complement what is already practiced in disaster risk management. For example, instruments for risk management have proliferated especially with the recognition of environmental management, poverty reduction and financial management.

Environmental and natural resource management is among the best–known applications to reduce flood risks, control landslides (through reforestation) and control droughts (through ecosystem conservation). Physical and technical measures, such as flood control techniques, soil conservation practices, retrofitting of buildings or land use planning, are effective in hazard control. Financial instruments in the form of insurance, calamity funds, catastrophe bonds are useful to lessen the impact of disasters.

1.1- Is there any good examples of linking environmental management and risk reduction practices in your country *(key areas of environmental management may include coastal zone, wetland and watershed management, reforestation and agricultural practices, amongst others).* If yes, please indicate in what areas. *(Attach any relevant documentation ore references)*

1.2- Are financial instruments utilised in your country as a measure to reduce the impact of disasters (*e.g. insurance/reinsurance, calamity funds, catastrophe bonds, micro-credit finance, community funds, etc.*)? If yes, please describe what these instruments are and when they were established, who manages them and who are eligible to them.

1.3- Please identify specific examples of technical measures or programmes on disaster risk reduction that have been carried out in your country (see below, case studies).

Component 5 Preparedness and Contingency Planning

Preparedness and emergency management has been used as a means for reducing life losses from direct and indirect effects of disasters. A well-prepared system is expected to be effectively informed by early warning, endowed with regularly rehearsed national and local contingency and evacuation plans, fitted with communications and coordination systems, as well as adequate logistical infrastructures and emergency funds. Local-level preparedness, particularly at community level, including training, deserves special attention as the most effective way of reducing life and livelihood losses.

1.1- Do you have disaster contingency plans in place? Are they prepared for both national and community levels? If yes, please describe their main components, who is responsible for activating the plan(s)?Are the plan(s) updated on annual basis? Have you ever used the contingency plan(s) that was or were developed? If yes, what was the result?

1.2- Has your government established emergency funds for disaster response and are there national or community storage facilities for emergency relief items – mainly food, medicine, tents/shelters? If yes, please provide some details.

1.3- Who is responsible for the coordination of disaster response preparedness and is the coordination body equipped with enough human and financial resources for the job? Please comment on the effectiveness of the coordination work done so far?

Component 6 Call for good practices in disaster risk management

Based on the above analysis and information provided, please provide at least two examples of any successful implementation of disaster reduction activities in your country (could be of local, national or regional scale); any project or community based experience, national policy, interaction between sectors, etc., would be welcome. Provide maximum one page on each example, indicating area of work, institutions and actors involved, duration, impact of the activities, lessons-learnt and if the example have been replicated. You may also kindly direct us to relevant web-based information/organization.

Component 7 Priorities you want addressed at World Conference on Disaster Reduction

What do you think are the priority topics to be agreed upon at the World Conference to enhance and strengthen national policy and practice to reduce risk and vulnerability to natural and technological hazards? Please list any other thematic areas or specific topics of discussion that you consider of importance to increase the effectiveness of disaster risk reduction for your country.
Please also indicate any particular experience or project that your country would like to exhibit or present at the Conference.

Interview

World Water Day was marked in the Burundi capital, Bujumbura, on 22 March 2004. On ***World Water Day was marked in the Burundi capital, Bujumbura, on 22 March 2004. On the sidelines of various events organized by WHO, UNICEF, UN/ISDR and the Government of Burundi on that occasion, Burundi Public Security Minister Mr Fulgence Dwima Bakana granted an interview to Mr Gerard Madodo. Mr Madodo, who is UN/ISDR's focal point in Burundi, has initiated the establishment of a UN/ISDR National Platform in the country. His interview with the minister centres on the Burundi government's determination to elevate disaster management to one of the country's national priorities.***

« World Water Day was an opportunity for my country, Burundi, to show to the nation and the international community that curing is not enough, and that, above all, one has also to prevent risks of natural and anthropic disasters. » *Mr Fulgence Dwima Bakana, Burundi Minister of public security.*

Mr Minister, you are known to be keen on disaster risk management. Can you tell us why?

Disaster risk management is of great interest to me for many reasons. First because it is part of my concerns and duties. Indeed the Ministry of Public Security is in charge of disaster risk prevention in the country.

The other reason is the following: my country suffered and is still suffering from both natural and anthropic disasters.

The ongoing civil war is a disaster which has been there for some 10 years, and which has already killed hundreds of people. I am positive that a conflict early warning system within the UN or the AU would help to prevent some conflict-related humanitarian disasters. It is clear that conflicts would be difficult to prevent in our countries, but many other calamities can be avoided if adequate early warning and preparedness mechanisms are put in place.

Regarding natural disasters, I wish only to quote the following African proverb: « The difference between a desert and a garden is not water, it is Man». My country is determined to involve all Burundians through a sensitization campaign aimed at making them increasingly aware of the fact that solutions are there to reduce vulnerability to these various disasters. To this end, combined efforts from all the peoples of the world are essential for the success of such a noble task.

How is the situation in Burundi in the field of disaster risk management?

As far as disaster risk management is concerned, my country has made no progress over the last few years, even though a department in charge of disaster prevention and management was established in 1998.

Burundi made some steps to join international efforts within the framework of the 1990-99 International Decade for Natural Disaster Reduction, IDNDR, but the social-political context which has prevailed in the country unfortunately

prevented it from giving concrete expression to such a will.

Nevertheless, selective actions falling under an event-centred type of management have been taken by various structures like government ministries, NGOs, associations, etc. The establishment of a coordination structure would help us not to waste some resources and efforts. Therefore we contemplate to launch a UN/ISDR National Platform in Burundi, which would contribute to ongoing national efforts to prevent and/or mitigate disaster risks.

Being the number-one person in charge of disaster risk management, what do you plan for the country in this particular field?
Being in charge of disaster risk management, my first concern is about involving, directly or indirectly, the entire Burundi population in the prevention of the disaster risks that affect the country.

How would I achieve this? First through a public awareness campaign highlighting the fact that solutions are there to reduce vulnerability to these disasters; then the establishment of a framework enabling us to acquire scientific knowledge which help to understand better the causes and effects of disasters on societies, and also enables a wider dissemination of knowledge so that the vulnerability of communities exposed to disasters is reduced.

« The difference between a desert and a garden is not water, it is Man»

The UN General Assembly has just agreed that a world conference on disaster reduction shall be held in Kobe, Japan, from 18 to 22 January 2005. What does our country expect from this conference? Do you have a message to those who are organizing the conference?
This world conference on disaster reduction will be an excellent opportunity for experience sharing between various communities from all over the world. Important decisions on issues of common interest might also be taken during the conference to ensure improved living conditions for people in various parts of the world.

Regarding my country's expectations, this forum is of prime importance. On top of existing gaps in practical information (of technical, political nature, etc.) in the field of disaster risk prevention and/or mitigation, the conference will enable us to see what has been achieved by other nations.

Do I have a message to those organizing the forum? I want them to show profoundness and consistence, to consider all aspects of the disaster risk prevention and/or mitigation problem.

Please note that I was brief in that first interview. The reason is information are still disparate in the field of disaster management in Burundi (due to an event-centred type of management by various government ministries, NGOs, UN agencies, etc.). However, I am very positive that the establishment of a UN/ISDR National Platform in Burundi will enable us to harmonize the timing of all activities and coordinate the actions taken by various partners.

UN/ISDR AFRICA 2003 activities at a glance

Context

Based on the initial progress and impacts made in 2002 and its good understanding of who was doing what and where in disaster reduction in Africa, as well as the need balance the match between needs and funds available, UN/ISDR's African Regional Outreach Programme – also known as UN/ISDR Africa - has carried out its work through outreaching, networking, cooperating and coordinating with major stakeholders in Africa on the basis of a "catalytic" approach.

Such an approach suited and still suits the limited resources at the disposal of the UN/ISDR Africa and its current initial "ground-work", implantation phase. The approach also helps to promote "national ownership" of the disaster reduction process, this being key not only to the success of the implementation of the ISDR but also to cost-effectiveness - on a huge African continent characterized by limited, and therefore expensive, communications.

Such a *catalytic* approach calls for pro-active, exchange-boosting and networking-focused communications and public relations policy from UN/ISDR Africa. It has been based on a refined selection of key interventions, maximal leverage-based choices of action at national, sub-regional and regional levels.

Objectives

In line with the vision set forth in the *Strategy for a Safer World in the 21st Century: Disaster Reduction*, the overall objective of UN/ISDR's African Regional Outreach Programme is to contribute to saving lives and assets through improved risk management and disaster prevention culture.

Areas of priorities

To achieve this objective, UN/ISDR Africa was working closely with UN agencies, regional and sub-regional organizations, and national authorities in Africa to promote implementation of the UN international strategy and framework for disaster reduction. In line with the areas of priority set in the Africa programme mentioned in the narrative report, slight changes were made and the focus was on the six areas below:

- Advocate the integration of disaster risk reduction into sustainable development
- Support institutional and human capacity building
- Promote networking and coordination
- Enhance public awareness and access to information on hazards, vulnerability and disaster risk reduction
- Support capacity building and coordination in early warning
- Encourage application of science and technology

Progress made

Under the guidance of the UN/ISDR Director and with the support of colleagues in its Geneva headquarters, UN/ISDR Africa was able to consolidate its constructive working relationship with regional organizations and make some tangible progress in the implementation of the ISDR's African Regional Outreach Programme. The points below demonstrate the tangible progress made in 2003:

Organization of a regional workshop on the *Application of Space Technology in IGAD countries*, in cooperation with the IGAD Secretariat and the Regional Centre for Mapping of Resources for Development (RCMRD) from 17 to 21 February 2003.

Establishment of ISDR National Platforms, in cooperation with national governments, UNOPS, OCHA and UNDP in Djibouti, Madagascar, Uganda and the Comoros.

Construction of a UN/ISDR Africa web-site ***www.unisdrafrica.org***

Coordination of an African Regional Consultative Meeting on Early Warning which was part of the preparation for the Second International Conference on Early Warning held in October 2003 in Bonn, Germany, and *sub-regional reviews of early warning systems* in IGAD, SADC and ECOWAS countries.

E*xtension of UN/ISDR Africa's network at national, sub-regional and regional levels, and launching of UN/ISDR Africa's biannual newsletter/magazine* called *Disaster Reduction in Africa - UN/ISDR Informs* in English and French.

Support to the NEPAD-led regional workshop on disaster management, and support to AU/NEPAD-led regional consultative meeting on disaster risk management. Started a AU/NEPAD and UN/ISDR Africa joint-initiative for the development of an *African Regional Strategy for Disaster Risk Management*.

Promotion of women's participation and gender concerns in disaster reduction in Africa. Started joint initiative with UN-HABITAT and DMCN (Drought Monitoring Centre – Nairobi) to review disaster reduction in Africa from a gender perspective for strategy development and policy recommendations.

Finalization of an agreement with the Indian Ocean Commission (IOC) Secretariat on a sub-regional consultation and review of disaster reduction, and *organized IOC sub-regional consultations on disaster reduction.*

Production of radio programmes in English, French and Swahili entitled *Hazards and Disasters; Drought - What*

To Know & What To Do; Impact of Disasters On Our Communities; and *Living With Disaster Risks*.

Production of educational booklets for community leaders and schools on Water and Risk in Africa, and *production of the first two booklets of a children's educational collection* called *Safari* (Safari's Encounter With Landslide; Safari's Encounter With Floods).

Initial impacts

The tangible progress in 2003 further increased the visibility of the UN/ISDR and appreciation of its value-added assistance in the implementation of the International strategy for Disaster Reduction and advancement of disaster reduction process in Africa. Major impacts can be summarised as follows *(please note that numbers in this section corresponds to those above – under "Progress Made"*):

The regional workshop helped national authorities to understand that disaster reduction needed multi-level and multi-sectoral cooperation and collaboration as well as the importance of information, and generated cooperation between Uganda and South Africa in information management by using space technology.

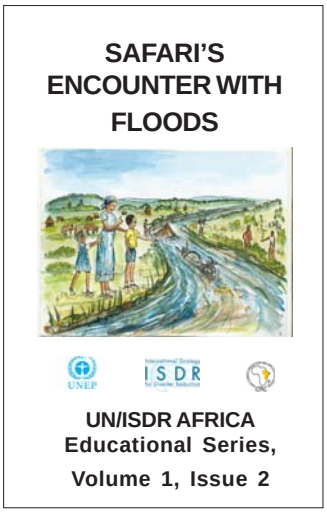
The establishment of UN/ISDR national platforms help to strengthen inter-ministerial cooperation in disaster reduction and identify areas of priorities in disaster reduction. The National Platforms organized follow-up meetings by themselves; Uganda set up a disaster information management unit; Djibouti is ready to develop a policy and strategy for national disaster reduction; and more countries - such as Botswana, Burundi, Rwanda, DRCongo and Ghana - expressed interest in establishing focal points for the implementation of the UN/ISDR. As the National Platforms were established with the help of UNDP country offices, the whole process therefore generated cooperation between UNDP and UN/ISDR Africa.

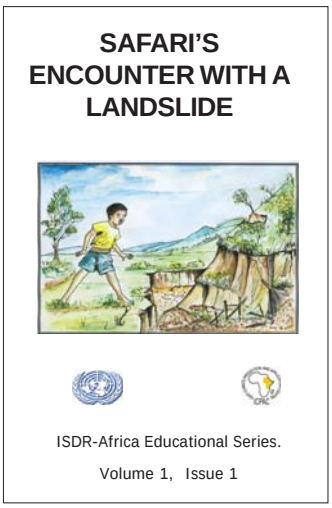
The web site contains comprehensive information on disaster reduction from regional, sub-regional and national authorities in Africa. While the web site was still under construction, UN/ISDR Africa received a large number of queries on why they could not access the web site: this shows that the web site was already used as a reference in the region.

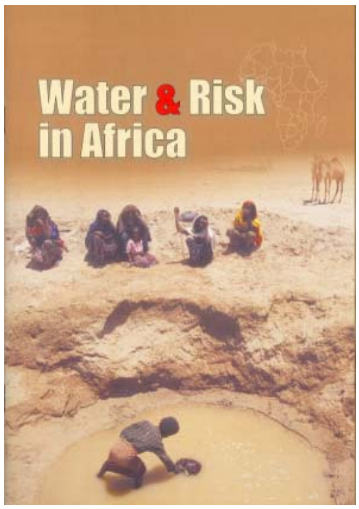
The African regional consultations made a substantive contribution to the Second International Conference on Early Warning held in Bonn, Germany, in October 2003. Compared with other regions, the African report was more comprehensive and useful as reference. African participation in the meeting (from cabinet ministers to women, NGOs) provided added value to the Bonn conference. After participating in the Bonn meeting, the Ghanaian deputy minister, for example, expressed willingness to work on disaster reduction with UN/ISDR Africa support. UN/ISDR Africa's value-added service has also been widely accepted since then.

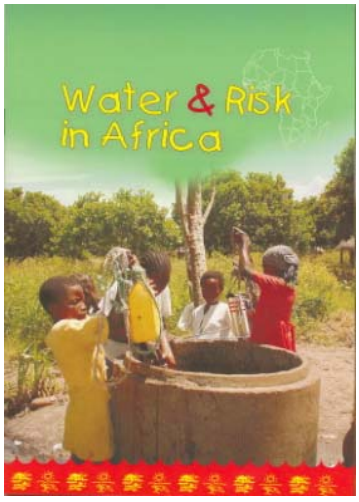
The extension of network with UN agencies and regional and sub-regional organizations helped to strengthen information sharing and knowledge exchange on disaster reduction. Since the launching of its biannual newsletter/ magazine, UN/ISDR Africa has received increasing requests for copies, growing contributions in the forms of article, and institutional interests and contribution for Arabic and Portuguese translation of the newsletter/magazine, in addition to French.

UN/ISDR Africa's support to the NEPAD Secretariat has made it possible to shift the focus on disaster response and food security to a focus on disaster risk management; and from that of a short-term plan of developing a disaster management programme to that of a long-term plan which includes a regional review of the disaster reduction process, and strategy development and programme development. This support also generated more interests and support from UNDP and UNEP to the ongoing joint initiative between the NEPAD Secretariat and UN/ISDR.









Women's interest in disaster reduction has increased. A women NGO in Kenya held a nationwide workshop with support from UN/ISDR Africa and the DMCN. An African regional review on disaster reduction from a gender perspective is also being carried out, which will result in policy recommendations and contributions to the ongoing process of developing an African Regional Strategy on Disaster Management (with the AU/NEPAD), in addition to being an input to the World Conference on Disaster Reduction (WCDR) to be held in Kobe, Hyogo, Japan, in January 2005.

The IOC is ready to develop a sub-regional strategy to facilitate the disaster reduction process in the sub-region.

The radio programmes were aired in different countries such as Uganda, Djibouti and Madagascar on the International Day of Disaster Reduction. *Safari's Encounter With Landslide* was well received by students and teachers, and an organization from Denmark asked whether it could use it as a model to modify their assistance to Madagascar. *Water and Risk in Africa – A guide for Community Leaders* and *Water and Risk in Africa –A Guide to Schools* generated more interests and support. UNDP is now working with UN/ISDR Africa to produce a guide on good governance and disaster reduction; UNEP agreed to share the cost of *Safaris's Encounter with Floods and Drought*, as well as that of a booklet on linking environmental protection and disaster reduction.

Priorities in 2004

To foster national ownership of the disaster reduction process, UN/ISDR Africa will continue to provide tailored assistance to the establishment of national platforms, based on official requests, and will make sure that national governments lead the process of establishing national platforms. At the same time, UN/ISDR Africa will endeavour to foster partnership with already-established UN/ISDR national platforms through mutual support in disaster reduction initiatives. UN/ISDR Africa's main priorities in 2004 are to:

Facilitate the creation of enabling environments: UN/ISDR Africa will continue to encourage and assist national governments to create enabling environments consisting of national policies, legislations, strategies, institutional frameworks, human capacity and financial resources through advocacy, technical support, information-sharing and knowledge exchange.

Increase awareness of disaster risks: UN/ISDR Africa will continue its effort to raise general awareness of disaster risks through advocacy, production of newsletters, information kits and educational materials, and in-depth analysis of disaster impact on socio-economic development.

Encourage consultations and promote cooperation and collaboration: UN/ISDR Africa will continue to initiate and encourage multi-level and multidimensional consultations on specific subjects related to disaster reduction through formal and informal meetings at national, sub-regional and continental levels.

Address gender concerns in disaster reduction: UN/ISDR Africa will continue to promote gender concerns in disaster risk reduction and increase awareness of gender difference in the impact of disasters.

Advocate the linkage between disaster reduction and poverty eradication towards the Millennium Development Goals: UN/ISDR Africa will carry out in-depth studies in poor areas in Africa and develop guidelines on how to link disaster reduction with poverty eradication, based on the insight gained in the planned in-depth studies.

Facilitate African regional preparation for the January 2005 World Conference on Disaster Reduction to be held in Kobe, Hyogo, Japan: UN/ISDR Africa will facilitate the ongoing African continental review in cooperation with national governments, sub-regional and regional inter-governmental organizations and the UN system. UN/ISDR Africa will also use this review as an opportunity to further engage governments and communities in disaster reduction.

PUBLICATIONS UPDATE

UN/ISDR Africa to publish community guide on disaster reduction & environmental protection

UN/ISDR Africa is preparing a community leader's guide on "Environmental Protection and Disaster Risk Reduction".

The booklet is part of UN/ISDR Africa public awareness activities, and is being prepared in partnership with Umvoto Africa, a South African earth science consulting firm. Umvoto Africa has already completed another booklet entitled "Water and Risk in Africa". "Water and Risk in Africa" is the first community leader/school guide published by UN/ISDR Africa.

Increasing public awareness about natural and related hazards and the risks they pose to societies and economies has become one of the four key objectives of the UN International Strategy for Disaster Reduction (UN/ISDR).

As public awareness aims to convey knowledge about existing solutions that can reduce vulnerability to hazards, UN/ISDR Africa resolved to publish a series of booklets for community leaders with simplified versions for school children. For a better coverage of the entire African continent, the booklets will be published in English, French and Portuguese.

Why the next booklet will be on "Environmental Protection & Disaster Risk Reduction"? Over the past 40 years, natural hazards such as earthquakes, droughts, floods, storms and tropical cyclones, wildfires and volcanic eruptions have caused major losses of human lives in Africa. They often result in the destruction of economic and social infrastructure, as well as damage to natural environment (UN/ISDR, 2002).

The "Environmental Protection & Disaster Risk Reduction" booklet will describe how environmental degradation results in increased community vulnerability to disasters, and why disaster reduction should be linked to environmental protection.

Desertification, deforestation, soil degradation, coastal erosion and pollution can all result in situations where communities are more exposed to hazards than they were before. The effects of environmental degradation contribute to an increase in vulnerability and the frequency and intensity of natural hazards - either in the form of slow-onset disasters (e.g. drought) or rapid-onset disasters (e.g. floods).

The booklet will also put some emphasis on sustainable development, and will show how disaster risk awareness and reduction can be tools to support sustainable development.

Indeed, as sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Brundtland Commission, 1987), it is based on socio-cultural wellbeing, good governance, economic efficiency and environmental protection, which all contribute positively to disaster risk reduction.

The booklet will also feature a number of success stories about disaster risk reduction through community participation, and will illustrate the benefits of Environmental Protection & Disaster Risk Reduction.

Last but not least, the booklet provides community leaders with guidelines on risk assessment (with some emphasis on environmental hazards), environmental protection and risk reduction measures, early warning systems, disaster preparedness planning, sustainable development and reducing reliance on disaster relief.

When communities take active steps to protect their environment, they are also helping to reduce the risk of disasters. And if a community is aware of local risks, and has disaster preparedness plans in place, then it will be in a better position to respond to and recover from disasters.

INDIAN OCEAN ISLANDS: Disaster reduction "gains momentum"

UN/ISDR Africa
Nairobi, Kenya

"To mobilize and pool national capacities… in aid of a member country in need…", "…to integrate disaster risk reduction in all development programmes and investment activities…" These recommendations were made by disaster management officials from five Ocean Indian islands…

"Disaster reduction has stopped being a mere option, it is now part of action in IOC (Indian Ocean Commission[1]) countries. In a nutshell, disaster reduction is gaining momentum in the sub-region."

This comment was made by Dr Hasina Randrianasolo, international consultant on disaster management, at the end of a *Sub-regional Consultative Meeting on Disaster Risk Reduction* organized jointly by the IOC General Secretariat and UN/ISDR Africa on 20 and 21 November 2003 in Antananarivo, Madagascar.

The consultative meeting, during which cooperation between the two above-mentioned bodies became effective, was attended by two representatives of each of five Indian Ocean islands (Seychelles, Comoros, Madagascar, Reunion et Mauritius), two representatives of the IOC General Secretariat and one representative from UN/ISDR Africa.

Towards common action

Periodically exposed to and particularly vulnerable to increasing threats of disasters caused by natural hazards such as cyclones, floods, droughts, volcanic eruptions, etc., the five IOC member states have experienced huge economic and human losses as well as human suffering every year.

Yet, any effort to reduce poverty and attain sustainable development would be vain unless disaster risks and the protection of human lives and livelihoods are managed properly.

Therefore, to strengthen disaster reduction process in southwestern Indian Ocean, the IOC General Secretariat and UN/ISDR Africa noted that some common actions, in the field of disaster reduction, were in the mutual interest of IOC member countries.

Seeking consensus

Three objectives were set for the consultative meeting:

1. Reinforced sub-regional cooperation in disaster risk management;
2. Forum for IOC member countries and major UN agencies to share views and experience in disaster risk management;
3. Consensus on how to handle disaster risk management for sustainable development in the sub-region.

For the sake of sustainable development

The meeting was opened and closed formally by the minister of interior and administrative reform of the Republic of Madagascar, the host country, Mr Jean Seth Rambeloalijaona, also chairman of the country's *Conseil national de secours* (CNS – National Relief Council).

On the first day, a total of eight presentations were made respectively (1) by representatives of four countries on the state of disaster risk management in 2003 et 2004 in their respective countries (Comoros, Mauritius, Madagascar, Seychelles) ;

The presentations were followed by discussions centred on how to handle disaster risk reduction for sustainable development in the sub-region.

Sub-regional strategy, policy

Recommendations were made during the meeting. The participants recommended the following as foundations for an effective and sustainable management of disaster risks in the sub-region: (1) sound, sustainable and effective sub-regional coordination in disaster risk management; (2) sound, sustainable and effective sub-regional cooperation in disaster risk management; (3) effective incorporation of disaster risk reduction and impact mitigation into development and poverty reduction policies, strategies and initiatives.

The participants also recommended that it was imperative for member countries: (1) to adopt a common vision of disaster risk management ; (2) to adopt and put in place an agreed framework for sub-regional operations and a common reference framework for operations at national level; (3) to have an acceptable (minimal) level of institutional and technical capacity; and (4) to display and provide sustained and sustainable political commitment.

They recommended that: (1) a General Strategy and Policy for Disaster Risk Management be developed in the sub-region; as well as (2) short, medium and long-term sectoral strategies, followed by the identification of relevant programme activities.

"Inter-State Solidarity"

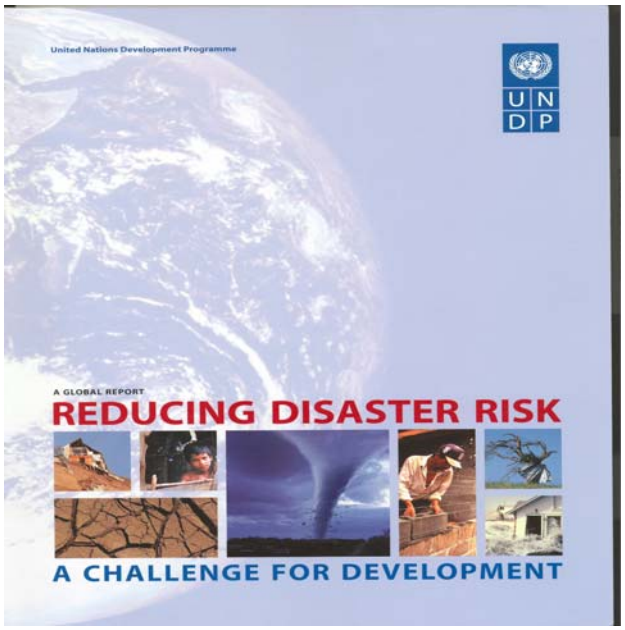
The participants recommended that national authorities' political will be mobilized and all the member States be involved through a cooperation treaty or convention binding them to participate in the common process to be implemented, *no matter what* situation or priority may be prevailing in each country.

The participants also recommended that *Inter-State Solidarity* be strengthened and implemented:

- by developing and signing a protocol cooperation agreement (framework and procedures for the mobilization of Inter-State Solidarity);
- by mobilizing and pooling national capacities - where the need arises and when available but for a well-defined period - in aid of a member country in need;
- by incorporating disaster risk reduction and impact mitigation into all development policies, strategies and programmes, and into all investment activities.

UNDP launches landmark global report on disaster risk reduction and development

Mr. Kenneth Westgate
Senior RegionalAdvisor
UNDP/BCPR (Bureau for Crisis Prevention and Recovery
Nairobi, Kenya



Some 75 % of the world's population live in areas affected at least once by earthquakes, tropical cyclones, floods and droughts between 1980 and 2000. The consequences of such widespread exposure to natural hazards for human development are only now beginning to be identified. Natural disaster risk is intimately connected with processes of human development.

Disasters put development at risk. At the same time, the choices made by individuals, communities and nations can generate new disaster risks. However, human development can also contribute to a serious reduction in disaster risks.

Link between disasters, development

UNDP's Bureau for Crisis Prevention and Recovery (UNDP-BCPR) has launched a global report entitled *Reducing Disaster Risk: A Challenge for Development*[2]. The report attempts to define the relationship between disaster occurrence and disaster risk and development.

Development processes intervene in the translation of physical exposure into natural disaster events. This is demonstrated by the observation that while only 11 % of the people exposed to natural hazards live in countries classifies as demonstrating low human development, they account for more than 53 % of total recorded deaths.

The report argues that disaster risk is not inevitable and offers examples of good practice in disaster risk reduction that can be built into ongoing development planning and policy.

The report incorporates the first Disaster Risk Index (DRI) that compares physical exposure to hazards, vulnerability and risk between countries, demonstrating a clear link between human development and death rates following disasters triggered by natural hazards.

Protecting Millennium Development Goals, other development initiatives

Through our increasing knowledge and understanding of the relationship between disaster risk and development, UNDP is suggesting that there is a real opportunity now to address disaster risks in a positive way to support poverty reduction, the Millennium Development Goals (MDGs) and other major development initiatives that are laid open to disruption and destruction by disaster events.

UNDP, thereby, is stating its collective resolve to see disaster risk as a component of the development agenda and to encourage others to do the same. Even though disaster events produce good media coverage, continuing to respond to their aftermath does nothing for the vulnerable state of people that led to these disasters occurring in the first place.

What UNDP hopes to achieve through this report is no news at all: ultimately disaster risk reduction should mean that at the very least disaster risks are reduced to manageable proportions.

Unattainable though this sounds, unless risks are tackled in an integrated and comprehensive way, then all hope of really effective development, including achieving the MDGs, disappears.

The Disaster Risk Index

The report establishes the first Disaster Risk Index (DRI). The DRI provides the physical exposure levels and relative vulnerability for more than 200 countries and territories for four natural hazards – earthquakes, tropical cyclones, floods and drought.
The figures were determined by comparing the number of people exposed in relation to population and then mapping the data in a geographical information system. By evaluating the number of people killed annually from 1980 to 2000 with the number of exposed people, UNDP has been able to compare countries' vulnerabilities to different natural hazards.

In Iran, for example, an average of 1,074 people were killed each year in earthquakes between 1980 and 2000, for

every one million people exposed. Compare this with the 0.97 people killed each year per one million people in the USA.

The DRI compares countries' risk levels with 26 social, economic and ecological indicators in order to identify development processes that were contributing to high vulnerability. Tropical cyclone risk, for example, is strongly identified with countries of large, predominantly rural populations with low ranking on the Human Development Index.

Countries with low GDP per capita, low densities of population (in flood-prone areas) and high numbers of exposed people are most at risk from floods. Even though the DRI must be considered as work in progress with current data incomplete (particularly in the case of drought), the report is also a plea for investment in data collection and management, so that the picture becomes clearer and the disaster risk issues plainer, and that includes countries where currently the data collection mechanisms are poor.

The DRI will assist in identifying those countries that face the greatest risks and will provide a baseline for identifying the key issues ansd assessing the problems and solutions. However, the DRI is not a panacea but rather a window on risk and the context in which it accumulates.

Disaster risk reduction: a challenge for Africa

The integration of disaster risk management and reduction into national, sub-regional and regional development policies and programes is, globally, a relatively new phemomenon. Africa is probably the continent where the least has occured thus far although there are encouraging signs.
Among the sub-regional organizations, the Intergovernmental Authority on Development (IGAD) has an agreed disaster risk reduction programme in support of its member states. The Southern Africa Development Community (SADC) has also recognized the importance of giving disaster risk management backing to its members. Even regionally, the New Partnership for Africa's Development (NEPAD) is currently at work defining a disaster risk management strategy for Africa.

Nationally, a number of countries have defined disaster risk management as a distinct component of the UN Development Assistance Framework (UNDAF), among them Ghana, Rwanda and Djibouti. South Africa is concerned to integrate its disaster management programme into the development process at municipal level and below. Many organisations and agencies, both inter-governmental and non-governmental are providing stimulus.

Disaster risk reduction, a UNDP central focus

With the production of the UNDP-BCPR report, UNDP has made disaster risk reduction a central focus. And as the UN's principal development agency, the onus is on UNDP to demonstrate the efficacy of good, development-based disaster risk management.

The advocacy and awareness raising of the UN International Strategy for Disaster Reduction (UN/ISDR) is crucial support to this, while other UN agencies such as HABITAT and UNEP are also involved in what is rapidly becoming a multi-agency concern.

Both UNDP and UN/ISDR have appointed regional advisers for Africa who can animate the process through UNDP country offices and their co-operation with national governments.

Report's recommendations

The report concludes with the following recommendations:

- Appropriate governance is fundamental to ensuring that risk considerations are factored into development planning and programming, and that existing risks are thereby effectively mitigated.
- Disaster risk management considerations should be factored into recovery and reconstruction programmes following disaster.
- Integrated climate risk management should be promoted: building on capacities that deal with existing disaster risks is an effective way of generating capacity to deal with risks emanating from future climate change.
- Disaster risk reduction policy has to take into account the fact that natural hazard is only one among many potential threats to life and livelihoods. Often those people and communities most vulnerable to natural hazards are also vulnerable to other hazards. For many, livelihood strategies are all about the playing off of risks from multiple hazards – economic, social, political and environmental. Disaster risk reduction policy has to look for opportunities to build generic as well as disaster risk specific capacities.
- In addition to addressing future disaster risks, a legacy of risk accumulation exists today and there is a need, therefore, to improve disaster preparedness and response to address this.
- A first step towards more concerted and coordinated global action on disaster risk reduction must be a clear understanding of the depth and extent of hazards, vulnerability and disaster loss. There is a need, therefore, to address gaps in knowledge for disaster risk assessment through:

(a) enhancing global indexing of risk and vulnerability, enabling more and better inter-country and inter-regional comparisons; (b) supporting national and sub-regional risk indexing to enhance the production of information for national decision makers; (c) developing a multi-tiered system of disaster reporting; and (c) supporting context-driven risk assessment. ■

The author would like to acknowledge the assistance of the Nairobi office of the Integrated Regional Information Network (IRIN) of the UN Office for the Co-ordination of Humanitarian Affairs (OCHA) in the preparation of the article above.

SADC - Mid season strategic assessment and disaster preparedness meeting

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The Southern African Development Community (SADC) held a Mid Season Strategic Assessment and Disaster Preparedness Meeting in Maputo, Mozambique, from 4 - 6 February 2004. The meeting was officially opened by Mr. Isaias Mondlane, the Permanent Secretary for the Ministry of Foreign Affairs and Cooperation in Mozambique. It was chaired by Mrs. M.S. Lebesa, the Principal Secretary for the Ministry of Defence and National Security in the Kingdom of Lesotho, and was attended by cooperating partners. The meeting was sponsored by the Government of Germany through Internationale Weiterbildung und Entwicklung gGmbH (inWent), and by the United States Agency for International Development (USAID).

The meeting assessed the status of the 2003/2004 rainfall season in order to comprehend the prospects of the remainder of the season and map the way forward.

Findings

The meeting deliberated on various national and regional presentations on relevant themes, and in particular the following:

Food security concerns over early season drought
The meeting noted the late onset and erratic rainfall during the first half of the 2003/04 season in most SADC Member States. This has led to an overall reduction in area planted and reduced production prospects for the season. The region may therefore not be able to cover its food requirements for the 2004/05 marketing season. The Member States affected include Botswana, Lesotho, Swaziland, Malawi, Mozambique, Tanzania, South Africa and Zimbabwe. Even the near-normal rains forecast for the February – April period may not improve crop conditions in Botswana, Swaziland, Lesotho, southern Mozambique, southern Malawi, and parts of South Africa. However, prospects may improve in parts of central Mozambique, Namibia and Zimbabwe if normal rainfall is experienced for the remainder of the season. The food security situation is compounded by the low production that has been experienced in most of these areas over the last three seasons.

Water resources are low
The participants noted that river, dam, and groundwater levels are low in Botswana, Lesotho, Swaziland, Malawi, Mozambique, Tanzania and South Africa, as a result of poor rainfall performance. The water shortages are affecting agricultural, domestic and industrial water use. A number of Member States are already taking measures to mitigate the impacts of the severe water shortfalls.

Localized flooding affecting communities
Heavy rains in the upper-Zambezi, Cunene and Okavango basins led to flooding in some Member States such as Angola, Botswana, Namibia, and Zambia. This affected communities where riverine agriculture is practiced, as crops were either submerged or washed away.

Livestock in poor condition
Poor pastures have affected major livestock producing Member States and there are likely to be unfavourable economic consequences. The affected Member States include Botswana, South Africa, Namibia, and Swaziland.

Increasing food prices
There is anticipated pressure on prices of staple foods in most markets due to the projected low production. In addition, the meeting noted with concern the fact that the transportation of foodstuffs has become excessively expensive when compared with the value of consignments.

Recommendations

In view of the above observations, the participants recommended the following:

Assessments required to better understand the levels of vulnerability
Coordinated multi-sectoral vulnerability assessments should be given top priority, and carried out with urgency, so that an efficient and effective response can be launched to assist affected communities. In order to reduce duplication and build consensus, these assessments must be carried out through existing national and regional structures.

Make use of second season and winter cropping
Member States are urged to make use of the near-normal rains expected for the remainder of the season and ground water sources for potential second season crops where this is possible.

Improve emergency response
While Member States, UN, and other multilateral agencies have done commendable work towards the provision of food assistance in Member States affected by last year's crop failure, there is need to solve outstanding challenges with targeting and addressing the impact of HIV/AIDS on food security.

Increased emphasis on disaster prevention, mitigation and preparedness
Member States and cooperating partners are urged to allocate additional resources towards disaster prevention, mitigation and preparedness.

Need to strengthen institutional capacities
The meeting noted that Disaster Management institutions and Vulnerability Assessment Committees have not been fully instituted at the SADC Secretariat and in some Member States. The meeting recommends that the SADC Secretariat and Member States strengthen their disaster management structures and functions. This entails strengthening institutions that are key in these areas, including human resources development.

Role of trade and markets
Formal and informal intra-regional food trade should be promoted as the first resort to resolve expected food deficits.

CLIMATE INFORMATION IN DISASTER MANAGEMENT : Towards a regional strategy in Greater Horn of Africa

Mr. Zachary Atheru
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IGAD Climate Prediction and Application Centre (ICPAC)
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A *Workshop on the Development of a Regional Strategy on the Factoring of Climate Information in Disaster Management* was held in Nairobi, Kenya, from 23 to 24 February 2004 at the Drought Monitoring Centre, Nairobi (DMCN).

The workshop was organized jointly by DMCN and the World Meteorological Organization (WMO) in partnership with National Meteorological and Hydrological Services (NMHSs) within the framework of a USAID-funded project known as *Sustainable generation and applications of climate information, products and services for disaster preparedness and sustainable development in the Greater Horn of Africa (GHA).*

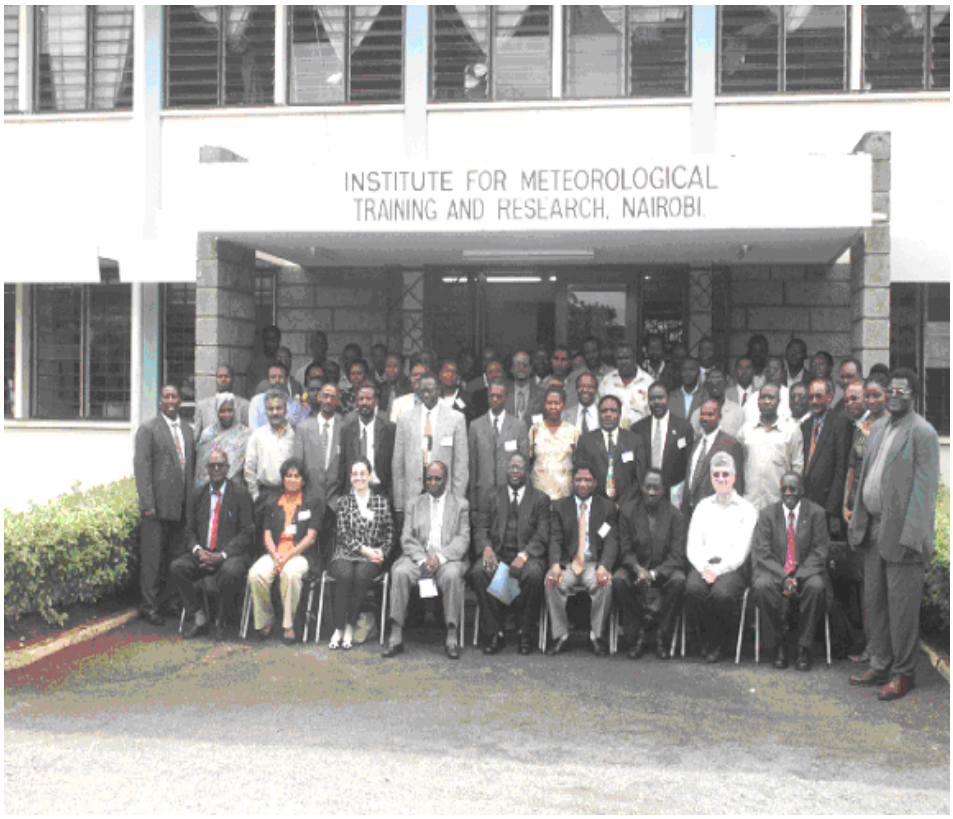
Factoring of climate information in disaster management

The main objective of the workshop was to review country reports and to develop a regional strategy on factoring of climate information in disaster management in the region.

An overview of disaster risk reduction was presented, including the contribution of ICPAC (IGAD[1] Climate Prediction and Application Centre – previous name of DMCN) to disaster reduction and sustainable development in the GHA, and UN/ISDR disaster risk reduction activities in Africa.

The country reports had useful findings that can be used to enhance the interpretation and application of climate outlooks such as:

- Climate extremes and risk zone maps
- Onset, cessation and duration
- Climate extremes associated with El Niño and La Niña evolutions of climate-related extremes
- Map patterns of wet and dry spells
- Map patterns of climate-related disease outbreaks
- Map patterns of climate-related agro-climatic zones



Participants of the workshop

Workshop's resolutions

The following were the resolutions of the workshop:
The participants in the of the Workshop on the Development of a Regional Strategy on the Factoring of Climate in Disaster Management:

Welcome:

The opportunity provided by the Drought Monitoring Centre – Nairobi (DMCN), in partnership with National Meteorological/ Hydrological services (NMHSs) and with the support of USAID/OFDA and WMO to identify appropriate ways of factoring weather and climate information in disaster management in the Greater Horn of Africa;

Recalling that:

1. The impacts associated with extreme weather and climate events often retard socio-economic growth of many developing nations, such as GHA Countries, as exemplified by the 1997/98

El-Niño-related floods that were immediately followed by the 1999-2000 La Niña-related drought and the 2003 floods whose effects will linger on for along time;

2. The majority of rural communities who contribute significantly to national economies and are most vulnerable to extreme weather and climate events, rarely receive and use weather and climate information due to poor dissemination, inadequate capacity to interpret the climate outlooks and lack of awareness;

3. Weather and climate is rarely factored in the decision-making processes of the majority of sectors which are climate-dependent, including economic planning;

4. That the impacts of the recent floods and drought have aroused an increase in demand for weather and climate information and a general rethinking of how the region should cope with climate-related disasters;

Recognizing that:

1. Over 70 % of natural disasters in the GHA are related to extreme climate events which are often associated with severe socio-economic impacts that include lack of food, water, energy and many other basic needs leading to famine; mass migration of animals and society; loss of life and property; damage to infrastructure; and disruption of normal activities; among many other socio-economic miseries ;

2. The Intergovernmental Authority on Development (IGAD) has taken an initiative to formulate an integrated Disaster Management Policy;

3. The NMHSs and DMCN have databases and some capacity that can be used for risk zoning, vulnerability and impacts assessment for planning and management of all climate sensitive activities;

4. The NMHSs and DMCN provide weather/climate forecasts and early warnings that could be factored into various socio-economic sectors in order to minimize the negative impacts that are usually associated with such extreme events and that these products could as well be used to take advantage of any positive impacts ;

5. GHA's agriculture, food security, health, energy, water resources, human settlement and public safety are highly dependent on weather and climate variability, and, as such, there is need for timely and reliable weather information, data and prediction products to facilitate appropriate responses to enable communities and governments make timely and informed decisions and sound strategic plans ;

6. GHA heavily depends on its natural resources including forests, wildlife, water bodies and environmental conditions whose distribution are influenced by climate conditions and the nations' major activities revolve around these resources and, therefore, factors that can negatively change their functionality require appropriate management;

7. Weather and climate-related factors play a major role in the industrial activities of this region, especially in relation to the availability of raw materials and the impacts of industrial pollution on the environment. ■

Strong legal, institutional frameworks needed for disaster management

Dr James Kamara
Mr. Laurent Granier,
UNEP Division of Environmental Policy Implementation,
Nairobi, Kenya

Even though there may be vague awareness of the need to develop suitable legal frameworks with institutional arrangements to address environmental emergencies, the vicious cycle of lack of capacity is still a major burden in Africa, say two UN officials - in a report on a sub-regional workshop held in Lesotho.

A "Workshop on National Legislation and Institutions for Environmental Disasters in Selected Countries in Southern Africa" was organized by the Government of Lesotho and the United Nations Environment Programme (UNEP) in Maseru, Lesotho, from 18 to 20 February 2004.

The workshop was attended by representatives from Botswana, Malawi, Mozambique, Swaziland and Lesotho, as well as by a representative from UN/ISDR Africa office in Nairobi, Kenya. Specifically, participants were drawn from the Ministries of Environment, the Attorney General's Office, Government Agency/Authority and local NGOs dealing with disaster management.

Environmental legislation-disaster risks/vulnerabilities nexus

Effective prevention, preparedness and response to environmental emergencies can be achieved best in the presence of strong legal and institutional frameworks for disaster management at national, sub-regional and regional levels.
This requirement forms the basis for the development of appropriate national, sub-regional and regional environmental emergency plans, and, at the same time, serves as legislative authority for national and community-level measures and effective systems for prevention, preparedness and response to disaster

events implemented by various governments and community agencies involved in disaster management.

Limited capacity to promote understanding of environmental legislation-disaster risks/vulnerability nexus remains a major problem in many countries in Africa. There is therefore a need for clear understanding of inter-linkages between environmental degradation and natural and technological disaster risks and vulnerabilities, and for environmental emergency prevention, preparedness, response and mitigation.

The vicious cycle of lack of capacity

Even though there may be vague awareness of the need to develop suitable legal frameworks with institutional arrangements to address environmental emergencies, the vicious cycle of lack of capacity - which allows environmental destruction to proceed unabated with its attendant disaster risks and vulnerabilities -, is still a major burden to many countries in Africa.

For example, the same officials who bemoan destruction of the environment and natural resources that predispose the people to disaster risks and vulnerabilities, will invariably issue licenses for such destruction, evidently taking advantage of the absence or weakness in environmental emergency law and the machinery for its implementation.

Need for comprehensive legislation for environmental disaster management

There is growing interest in African countries in the development of environmental law as part of the global exercise in the promotion of sustainable development through the use of environmental resources, while also recognizing the inherent interest of future generations.

Environmental law in Africa generally follows sectoral patterns as the policies. In a number of countries, however, separate laws put in place by sectoral

ministries have been linked together in over-arching legislation and some new laws have been put in place.
The Partnership for the Development of Environmental Law and Institutions in Africa (PADELIA) Project - implemented by UNEP in partnership with donors - was therefore initiated in 1994 to strengthen environmental legislation through awareness raising, capacity building and training of national experts in the formulation of environmental legislation. However, comprehensive legislation for environmental disaster management is either lacking or limited in scope in many countries in Africa.

The Maseru workshop was therefore organized within the framework of PADELIA as a starting point for sensitisation and building awareness of the need to develop and/or harmonize and incorporate environmental laws and institutional arrangements in environmental disaster prevention, preparedness, response and mitigation.

Workshop goal, objectives

The main goal of the workshop was to serve as a forum to sensitize and raise awareness on the inter-linkages between environmental degradation and disaster risks and vulnerability.

It also emphasized on the need for appropriate legislative and institutional frameworks for environmental emergency prevention, preparedness, response and mitigation at national, sub-regional and regional levels.

The immediate objective of the workshop was therefore to bring together national experts dealing with environmental legislation and regulations for environmental emergencies in the five Partnership for the Development of Environmental Law and Institutions in Africa (PADELIA) project countries to exchange information, share experiences and lessons learned regarding environmental laws and institutional arrangements that focus on disaster prevention and risks reduction in order to strengthen national and regional environmental emergency management.

Workshop discussions

The workshop was conducted in an interactive dialogue in order to achieve deeper and wider understanding as well as build on any existing legislative frameworks as well as on other existing legal arrangements from which more appropriate and focused laws could be evolved on environmental emergency management.
Discussions at the workshop focused on interactive dialogue by the participants in reviewing examples of Disaster Management Acts promulgated by some of the countries such as Lesotho and Malawi as well as other legal

arrangements for environmental emergency management such as those in Mozambique, Swaziland and Botswana.

Workshop conclusions

The workshop identified the strengths of the Disaster Management Acts promulgated in Lesotho and Malawi and also the legal and institutional arrangements for disaster management in Botswana, Mozambique and Swaziland where Disaster Management Acts incorporating the environmental dimension are yet to be developed and passed into law.

Gaps in both Disaster Management Acts and other legal arrangements were also identified and measures for closing the gaps recommended. For example, it was recommended that existing Acts or legal arrangements should be reviewed as appropriate to *clearly incorporate environmental dimension in disaster management.*

Overall, *raising public awareness on environmental management legislation and building capacity to ensure enforcement of such legislation* was recommended as a must for all the countries represented in the workshop and the governments should therefore pursue this as a matter of urgency and priority in the development process. More importantly, the workshop identified strengthening of coordination among stakeholders in environmental management and called on governments to take appropriate measures to *establish effective disaster coordinating mechanisms at national and community levels* which could be used *as a basis for sub-regional and regional disaster coordination.*

Overwhelmingly, the participants then expressed the *need for governments to translate and simplify disaster management policies, legislation and plans to local languages* to enhance understanding of local communities on the need for their effective implementation at the local level. ■

Comoros seek to improve disaster preparedness, contingency planning

Mr. Mohamed Abchir
Programme Officer
UN/ISDR Secretariat, Geneva

Following the most recent volcanic threat of the Karthala volcano and a request from the Government of the Union of the Comoros to establish a UN/ISDR national platform to improve national disaster management, the UN/ISDR had organised a workshop on the reinforcement of national capacities in disaster management.

During the workshop, which was held in the Comoran capital, Moroni, on 4 and 5 December 2003, the Comoran Ministry of Defence, which is in charge of disaster management, introduced to the participants a contingency planning proposal.

To improve disaster preparedness, contingency planning

As a follow-up action to this initiative, another workshop was held in the Comoros on 17 and 18 March 2004 by UNDP-Comoros, together with the UN Office for the Co-ordination of Humanitarian Affairs (OCHA) and with technical support from UNDP-BCPR (Bureau for Crisis Prevention and Recovery), UN/ISDR and UNICEF.

The main objective of the March 2004 workshop was to improve disaster preparedness and contingency planning in the Comoros.

The workshop was well attended with 38 highly motivated participants: 12 participants from the government of the Union, 11 from the three islands (Ngazidja Moheli and Anjouan) that make up the Comoran archipelago, 10 from UN agencies, 2 from the National Red Crescent Society, 2 from the civil society, and 1 participant from the media.

Specific objectives of the workshop were, among others, to introduce participants to the principles of emergency planning and management; discuss the concepts of emergency preparedness and response; consider the concepts of early warning, needs assessment, contingency planning and operations planning; begin the contingency planning process which will culminate in the preparation of a contingency plan for a possible emergency; provide an opportunity for participants to familiarize themselves with each other and their respective agencies' capacities and needs; and discuss coordination arrangements in relation to preparedness and contingency planning.

Prevention also discussed

A draft of disaster preparedness and contingency plans has been produced and a Task Force established to complete and update the plan.

This Task Force comprises representatives of the government and a focal point in the UN system in each of the identified sectors. The Task Force is co-chaired by the Director of civil protection and a designated member of the UN system.
Even though the main focus of the workshop was on preparedness and response, the participants, with the support of the facilitators, identified concrete measures for prevention in each of the identified sectors such as food security, early warning, water and sanitation, etc.

This really represents a major achievement they can build on in the future for any activity related to prevention.

Main follow-up actions

- Completion of disaster preparedness and contingency plans by the Task Force established.
- National authorities, with support from UNDP-Comoros, expected to undertake the development of a plan of action as a follow-up to the recommendations of the UN/ISDR workshop of December 2003 on national capacity building for disaster management.
- UN System expected to ensure the integration of disaster management into the UNDAF (UN Development Assistance Framework).
- OCHA and UNICEF to provide technical support to UNDP-Comoros for the completion and update of the plans.
- UNDP-BCPR and UN/ISDR to consider the possibility of a support for national capacity strengthening and the completion of the disaster preparedness and contingency plans. Some activities that could be undertaken by UNDP-BCPR and UN/ISDR, upon availability of resources, could be:

public awareness and education, development of institutional and legal frameworks for disaster management, support to early warning system through the Volcanic Observatory, community-level risk management, DMTP (Disaster Management Training Programme), support to the integration of disaster management in the PRSP (Poverty Reduction Strategy Paper) and UNDAF, and support to national coordination.

UN agencies' support very fruitful

Due to many factors including poverty (Comoros are one of the poorest country in the world), governance and political instability, the Comoros Islands are highly vulnerable to natural disasters (volcano, cyclones, etc.).

As recent initiatives taken by different UN agencies - after the most recent volcanic threat in 2003 - to support the country and UNDP-Comoros were very fruitful, they should be Continued in a coordinated manner for the benefit of the population.

KENYA: Towards women's active participation in disaster management

UN/ISDR Africa
Nairobi, Kenya

A Workshop on Mobilizing Women to Participate in Disaster Risk management was held in Nairobi, Kenya, on 1 and 2 March 2004, attended by 38 participants - women and men - brought together from NGOs, government organizations and disaster-prone areas. The two-day workshop was organized by the Soroptimist International[1] Club of Nairobi, ICPAC (IGAD[2] Climate Prediction and Application Centre) and UN/ISDR Africa.

Women marginalized in disaster reduction

Africans are increasingly affected by disasters, especially drought and floods. The increased disasters threaten people's lives and livelihoods, damage crops and infrastructures, interrupt social services and cause economic losses.

Consequently, disasters have deprived millions of people of food, portable water and shelters each year.

Even though there is growing interest in disaster reduction on the continent, it remains gender-blind. National authorities in Africa have not involved the participation of women in developing country policy positions on disaster risk management.

The different impact of disasters on women has not yet received proper attention, nor women's potential role in disaster reduction acknowledged. Women in Africa are the main force for community development and household welfares, but women are still a marginalized social group in disaster reduction.

Women are under-represented at decision-making level in disaster reduction and management, and women have less or no access to information related to disaster reduction. Yet, it will be impossible for Africa to achieve sustainable progress in disaster risk management and sustainable development without addressing gender concerns and mobilizing African women.

Women's service club determined to help

The Nairobi club of Soroptimist International (SI) reiterated its determination to work in cooperation with UN/ISDR Africa and Drought Monitoring Centre Nairobi (DMCN – previous name for ICPAC) to mobilize women to actively participate in disaster risk management and to address gender concerns in disaster risk management.

It was to this end that the Soroptimist International Club of Nairobi, the IGAD Climate Prediction and Application Centre (ICPAC) and UN/ISDR Africa organized the two-day workshop on *Mobilizing Women to Participate In Disaster Risk management.*

The workshop, which was held in Nairobi, Kenya, on 1 and 2 March 2004, was attended by brought together 38 participants - women and men - from

Mobilizing Women to Participate in Disaster Risk Management
Recommendations

Recognizing that gender concerns involve both men and women, both men and women should therefore be actively engaged in the disaster risk management process.

PUBLIC AWARENESS / ADVOCACY

- Accessing national draft policy on disaster management to identify if it is gender-sensitive and responsive; and recommending a national workshop with other stakeholders (religious organizations, government, NGOs, CBOs, women MPs, etc.) to discuss disaster management policies from a gender perspective.
- Lobbying for national budget allocation for disaster risk management within constituency development fund, notably in the framework of the PRSP (Poverty Reduction Strategy Paper).
- Integrating a gender perspective in the design and implementation of disaster management initiatives like tree planting, dyke construction, use of climate predictions and early warning systems, and establishing mechanisms to review such initiatives.
- Establishing a mechanism to support elderly and handicapped persons.
- Initiating literacy programmes to overcome societal challenges caused by illiteracy.
- Proposal submitted to ongoing Bomas Constitutional Review talks for one third of women representation in local development committees should be supported and mainstreamed.
- As informed individuals, recommending to policy makers to ensure access to resources, in particular land and property ownership, and take measures to empower women as producers and consumers to enhance their capacity to respond to disasters.
- Both women and men be trained and sensitized on land rights and inheritance.
- Women to be more assertive about the top management role they play in individual households and use their skills towards societal management of disaster issues.

INFORMATION MANAGEMENT

- In creating awareness, religious organizations and local groups should be used as for a to reach women.
- Educating women on disaster risk management through mobile sensitization units and centres.
- Information sharing with communities and leaders.
- Developing educational materials with a gender perspective on disaster reduction.
- Introducing disaster awareness and preparedness in school curricula.
- Using mobile phones to disseminate early warning information for effective disaster risk management.
- Be culturally informed and custodians of traditional knowledge to be brought on board and the knowledge be identified and documented: analyze all aspects of culture, select what is relevant and applicable and set aside what is retrogressive. Need for sensitization to certain negative cultural aspects and develop role models.
- Use of media in advocacy to play a major role in highlighting the role of men and women working together for change in disaster risk management. Editors should be sensitized on the importance of disaster management, climatology, hydrology, etc., and the importance of disseminating information on early warning.
- Utilizing local radio stations to discuss early and timely disaster management.
- Disseminating information on disaster reduction in mother tongues or any languages understood by a community.
- To get radio sets distributed to users in some priority areas as a pilot project.
- Need for a FM gender radio station run by Soroptimist International Union of Kenya, which will deal concretely with gender concerns in disaster risk management.

ECONOMIC EMPOWERMENT

- Capacity building for women to cope when disaster strikes, empowering women through mobilization, and working towards set goals related to disaster risk management, coping skills.

COOPERATION / PARTNERSHIP

- Forging partnerships and networks between governments, international organizations, private sectors and NGOs in integrated and gender-sensitive sustainable development to reduce risks, and with relevant organizations in civic education to get women into decision-making bodies.
- Women to liaise with district disaster management committees and incorporating existing Community-Based Organizations (CBOs) as focal points to train women.
- Networking all Soroptimist International members in Africa and elsewhere, ICPAC (IGAD Climate Prediction and Application Centre) and UN/ISDR Africa to address all issues pertaining to mainstreaming gender concerns in disaster reduction.

NGOs, government organizations and disaster-prone areas.

The event paved the way for enhanced collaboration and networking between the SI Union of Kenya and UN/ISDR Africa. It also marked the launching of a series of gender-oriented events that UN/ISDR Africa planned to carry out in cooperation with partners like UN-Habitat, UNIFEM, AU/NEPAD and Soroptimist International clubs all over Africa.

Workshop's objectives

The objectives of the workshop were to:

- increase women's understanding of disaster risk management;
- provide a forum for women to discuss how disasters affect women and men differently, and what kind of roles women have played in disaster risk management;
- understand women's needs in their active participation in disaster risk management at community level; and
- identify areas of priorities to mainstream gender concerns in disaster reduction.

Output and recommendations

- Better knowledge of hazards, risks and vulnerability;
- Better understanding of disaster risk management process;
- Good grasp of basic elements of effective early warning systems;
- Better understanding of disaster impact on men and women and the potential roles that women can play in disaster reduction;
- Consensus on areas of priorities in mainstreaming gender concerns in disaster reduction.

The workshop ended with some recommendations made by the participants *(please see Box for full text of recommendations)*. They said the forum provided by the workshop had to be extended to grassroots levels. This, they said, would help to build women's capacity in disaster reduction as an integral part of sustainable development.

The story of Budalangi and its annual floods invariably make newspaper headlines every year, in April and August, in Kenya. Two residents of Budalangi recount the story…from a gender perspective.

KENYA: Women's, girls' plight during Budalangi twice-a-year floods

Pamella A. Wakho & Hellen Okello
Budalangi residents

Budalangi Division is one of the six divisions of Busia District in western Kenya. Flooods are common in the division around the months of April and August.

Rainwater from some areas in Kitale (northwestern Kenya), which is carried down in River Nzoia, causes the floods in Budalangi.

The flood strikes mostly at night or at dawn. The waters travel at a very high speed and cause huge loss of family property. The floods strike mostly when men are away from home fishing in the inland waters of Lake Victoria (western Kenya). Women and children are the most affected, and are charged with the responsibility of rescuing family property.

Women and children start transporting things they consider important, like utensils, pots, chicken, etc. to safer grounds. Livestock like cows, goats, sheep are likely to be washed away by the rapidly flowing waters.

Upon reaching safer grounds, women are forced to build temporary structures to keep their property and children safe. Mostly, these shelters are made of grass and sticks before the government and other humanitarian organizations provide tarpaulins. People settle in camps at higher grounds until their lands dry up.

The farmland is submerged in water. The staple food which is cassava goes to waste since it is spoilt with too much water in the land. The waters start smelling because of the death of animals and other creatures in the bushes. This causes diseases like diarrhoea, malaria and pneumonia.

Women and girls affected in these camps are with the following problems: insufficient foodstuff, early marriages, high school drop-out rate, high pregnancy rate, high rate of STD (Sexually Transmitted Disease) and HIV/AIDS infection, rape case, domestic violence (wife beating), divorce.

Focusing on the problems encountered when there are floods in Budalangi, it is important that the community, and especially the women, be trained in early warning and disaster management at grassroots level, so that the community will have strength and skills to manage the floods.

REMOTE SENSING: African association's bi-annual confenrence slated for October 2004

Introduction

The African Association of Remote Sensing of the Environment (AARSE) was founded in 1992 and was registered as a Regional Member of the International Society for Photogrammetry and Remote Sensing (ISPRS) in 1994. The primary objective of the association is to increase the awareness of African governments and their institutions, the private sector and the society at large, about the empowering and enhancing benefits of developing, applying and utilizing responsibly, the products and services of Geoinformation Technology.

To achieve its objective, AARSE conducts bi-annual international conferences across Africa a part from other awareness and capacity building activities. To-date, AARSE, with the support of local and international organizations, has successfully organized four of such conferences in Harare (Zimbabwe) in 1996, Abidjan (Cote D'Ivoire) in 1998, Cape Town (South Africa) in 2000 and Abuja (Nigeria) in 2002. The respective themes of these conferences were as follows:

The Application of remotely Sensed Data and Geographic Information Systems (GIS) in Environmental Resources Assessment in Africa; Lessons of Experience and the Way Forward for Integrated Development and Application of Remote Sensing and GIS for Sustainable Development in Africa; Information for Sustainable development; and Geo-information for Sustainable Development in Africa.

The 5th AARSE Conference will be held in Nairobi in October 18 – 21, 2004 and will be jointly hosted by the Regional Centre for Mapping of Resources for development (RCMRD), Ministries of Environment, Natural Resources and Wildlife and of Lands and Settlement in Kenya, EIS-Africa and UNEP and UNESCO Offices, Nairobi.

It is also supported by United Nations of Office for Outer Space Affairs (UNOOSA), International Institute for Geo-information and Earth Observation (ITC), United Nations Economic Commission for Africa (UNECA), Maps Geo-systems Ltd among others. The venue of the conference will be at UNEP Headquarters, Gigiri, Nairobi, Kenya.

The theme of the conference

The theme of the 5th AARSE Conference is "*Geoinformation Sciences in Support of Africa's Development*". Information technology and knowledge are the main engines of development for the 21st century. The New Partnership for Africa's development (NEPAD) initiative aims at creating a common vision and strategic framework within which all-existing African development initiatives (both national and regional) can be pursued in an integrated and coordinated fashion.

Furthermore, it lays out a set of goals and objectives to be accomplished by the year 2015 that includes the eradication of poverty, putting Africa on sustainable growth and development path and to harness the benefits of information technology and globalization for the continent. For NEPAD to achieve its set objectives there is an urgent need to bridge the current information technology gap that exists in Africa. In particular, the development and application of geo-information technology in Africa is crucial for its sustainable development and future prosperity.

The technology is vital for optimizing the productive use of a country's human and natural resources, communicating the country's comparative investment by reducing investor risk and lowering costs, improving governance, empowering of local communities to directly participate in development and creating business opportunities in the provision, analysis and presentation of information.

The main goal of this conference is to promote the use of geo-information and ICT technologies in sustainable development and management of Africa and its environment.

The conference will put strong emphasis on the applications of various remotely sensed data (e.g., optical, microwave, hyperspectral; high to low resolution data) in resources assessment, management and monitoring. It will also explore the challenges and options for bridging the information technology gap that currently exists on the continent.

The thrust of the conference will be on

The current development status of Geo-information technologies (Remote Sensing, GIS, GPS and ICT). The application of geoinformation technologies in the assessing and management of:
Agriculture and forestry, soil, geology, water resources, biodiversity, rural and urban, coastal and marine resources, disasters, climate change and variability, environmental Database development and management, GIS and predictive modeling, development of geo-spatial data infrastructure, education and training in geo-information sciences and earth observation, national, regional and international polices on space technology development and application, space technology and gender.

Who should attend the conference?

The AARSE conference is a premier forum in Africa which brings together scientists, practitioners, educators, developers and vendors and policy and decision makers to discuss advancements (Latest developments), applications, capacity building and promotion of geo-information technologies in sustainable development of Africa. It is a forum in which participants learn and exchange ideas on the latest advancements in the technologies and their applications in different fields. Strategies for promotion and use of the technologies in Africa are also discussed.

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Experts agree on “Common Alerting Protocol”

Ms. Christian Sikandra

A new standard for public warning has been approved. It provides a common way to express alert messages for all manners of emergency situations: a “universal adaptor” for alert messages.

Experts have agreed on a standard for hazard warnings across all manners of communications channels. The Common Alerting Protocol (CAP) standard addresses the long-standing need to coordinate the wide variety of mechanisms used for warnings and alerts. The CAP inter-operability standard was agreed upon in the Emergency Management Technical Committee of the international Organization for the Advancement of Structured Information Standards (OASIS).

A breakthrough standard towards new alerting systems

With adequate warning, people can act to reduce the damage and loss of life caused by natural and man-made hazard events. The key is to get timely and appropriate alerts to everyone who needs them and to only those who need them. Yet, appropriate and complete alerting is a complex challenge. A great variety of warning systems exists: many are specific to certain types of disaster such as earthquakes or typhoons, or to certain channels for delivering the warning such as sirens or television announcements. The diversity of the systems, which were developed independently, is now a challenge to effective coordination. CAP provides a means of addressing this problem.

CAP serves as a universal adaptor for alert messages. CAP defines one message format with the essential features to handle existing and emerging alert systems and sensor technologies. This standard format can replace a whole range of single-purpose interfaces among warning sources and dissemination channels. From the perspective of warnings technology, CAP addresses the concerns about compatibility and operational complexity that have been stifling development.

CAP is a breakthrough standard that opens the door to new alerting systems and technical innovation. For example, location-aware receiving devices can use the standardized geo-spatial information in a CAP alert message to determine whether that particular message is relevant based on the current location of the device.

Alert sender can activate multiple warning systems

A key benefit of CAP for sending alert messages is that the sender can activate multiple warning systems with a single input. Using a single input reduces the cost and complexity of notifying many warning systems. A single input message also provides consistency in the information delivered over multiple systems. People receive exact corroboration of the warning through multiple channels.

This is very important for research has found that people do not typically act on the first warning signal but begin looking for confirmation. Only when convinced that the warning is not a false alarm, do they act on it.

CAP is designed to be compatible with all kinds of information systems and public alerting systems, including broadcast radio and television as well as public and private data networks.

Rather than being defined for one particular communications technology, CAP is essentially a “content standard”: a digital message format that can be applied to all types of alerts and notifications. In this way, CAP is compatible with emerging technologies such as Internet Web services, and with existing formats such as the US National Emergency Alert System and the Specific Area Message Encoding (SAME) used for NOAA (National Oceanic and Atmospheric Administration) Weather Radio in the US.

CAP is also compatible with alerting systems designed for multilingual and special-needs populations. By reducing the barriers of technical incompatibility, CAP creates the foundation for a technology-independent national and international “warning internet”.

A further benefit of CAP for emergency managers is that standardized warnings from various sources can be compiled in tabular or graphical form as an aid to situational awareness and pattern detection. When CAP is applied extensively, managers will be able to monitor at any one time the whole picture of local, regional, and national warnings of all types.

CAP alert messages can also be used at sensor systems as a format for direct reporting of relevant events to centres for collection and analysis.

CAP format

Effective warning systems need to reach everyone who is at risk, wherever they are and whenever the event occurs. Yet, one must not alarm people unnecessarily. Systems must be easy to use, reliable and secure. An effective warning message delivered by such a system must be accurate, specific, and action-oriented. And warning messages must be understandable in terms of language and special needs, with attention to the prior knowledge and experience of the receivers.

It is also critical that times, places and instructions are easily understood. The CAP format is designed to contain a broad range of information about the alert message, the specific hazard event and appropriate responses.

Each CAP message includes information that describes the message itself. Messages have unique identification numbers and may reference other related CAP messages. Identifying information about the message also includes the status and time sent, allowing messages to serve as updates and cancellations of previous messages.

In addition, messages are identified by source, and are compatible with digital encryption and signature techniques that ensure the reliability and security of the message.

The information about an event in a CAP message may be contained in multiple informational segments. Each informational segment includes a description of the event in terms of its urgency, severity, and certainty. CAP has separate descriptions for each of these three characteristics. "Urgency" describes how much time is available to prepare; "severity" describes the intensity of the impact; and "certainty" is a measure of confidence in the observation or prediction being made.

The event may be assigned to a category (e.g., geophysical, meteorological, safety, security, rescue, fire, health, environmental, transport, infrastructure) and is also described in text. CAP also supports the inclusion of associated digital images and audio. The inclusion of audio messages, for example, allows warnings to be broadcast directly on radio without requiring an announcer to read the message text aloud. Multiple informational segments allow the message to be transmitted in multiple languages or to multiple audiences.

Because each segment is associated with a geographic description, the multiple segments may also be used to convey information about bands of intensity. For example, an industrial fire might develop the potential for a major explosion. The incident commander needs to specify several components: evacuation of the area within half a mile of the fire, shelter-in-place instruction for the dispersion plume, and a request for media and aircraft to remain above 2,500 feet in the vicinity of the fire. Using CAP, the incident commander can send one message including the appropriate message elements for each area. The incident commander supplies the geographic descriptions, expressed using latitude, longitude and altitude, by outlining a polygon on a displayed map as he enters the CAP message.

CAP development, implementation

The information provided in CAP format reflects best practices for effective warnings identified through academic review and real-world experiences. In 2001 and 2002, Art Botterell led the initial design of CAP through an international working group of more than 120 emergency managers and emergency information technologists. The Partnership for Public Warning, a US public-private partnership of agencies, vendors and academic experts, then sponsored CAP to the OASIS (Organization for the Advancement of Structured Information Standards) Emergency Management Technical Committee. Working with Art Botterell, other technical experts refined and tested CAP throughout 2003 and approved CAP version 1.0 standard in 2004.

CAP has been endorsed by the US National Emergency Management Association's Preparedness Committee, the Partnership for Public Warning, the ComCARE Alliance, the Emergency Interoperability Consortium and the Capital Wireless Integrated Network (CapWIN). Applications using CAP have been deployed in multi-vendor events and field trials in Washington, D.C., Virginia, Florida, Nevada and California.

Implementors of CAP already include the US Department of Homeland Security, the US National Weather Service, California Office of Emergency Services, Virginia Department of Transportation, Capital Wireless Integrated Network (CapWIN), GeoDecisions Inc., E Team, Blue292, Warning Systems Inc., Comlabs Inc., mobileFoundations, Ship Analytics, MyStateUSA, Integrated Environmental Management Inc., Hormann America Inc., Oregon RAINS and NDS Ltd, among others. ■

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- *Common Alerting Protocol Version 1.0*. Edited by Art Botterell (Partnership for Public Warning). *Committee Specification*. From the OASIS (Organization for the Advancement of Structured Information Standards) Emergency Management Technical Committee. 10-February-2004. Document available on the Internet at: http://www.oasis-open.org/committees/emergency/. 32 pages
- *See also* the accompanying *CAP v1.0 XML Schema*.