



International Strategy for Disaster Reduction

Indicators of Progress:

Guidance on Measuring the Reduction
of Disaster Risks and the Implementation
of the Hyogo Framework for Action

Annexes



United Nations



International Strategy for Disaster Reduction

H F A

References

Indicators of Progress

Guidance on Measuring the Reduction
of Disaster Risks and the Implementation
of the Hyogo Framework for Action



United Nations

The reference list will be updated and checked for consistencies at the time of preparing the final version of the guide.

A. Publications

ADRC. Total Disaster Risk Management outcome of Asian Conference on Disaster Reduction 2003, Kobe, including elements for the Yokohama review process http://www.adrc.or.jp/5th/Asian_Conference_2003/top.htm.”

Disaster Risk Reduction conceptual framework developed in the context of the Andean Disaster Prevention Programme by Andean country governments, supported by the Andean Development Bank <http://www.grupo-lia.com/preandino>

Disaster reduction accomplishment criteria, the Asia Urban Disaster Mitigation Programme <http://www.adpc.ait.ac.th/audmp/m&e.html>

Australian Department of Transportation and Regional Services. Information about the Natural Disaster Mitigation Program can be found at: <http://www.dotars.gov.au/localgovt/naturaldisasters/index.aspx> The study can be found at: http://www.ga.gov.au/image_cache/GA4267.pdf

Black A and Hughes, P 2001 Department of Family and Community Services Occasional Paper no. 3 The Identification And Analysis Of Indicators Of Community Strength And Outcomes Edith Cowan University A report to the Department of Family and Community Services February

Cardona, O.D. 2003 *Indicators for Risk Management: methodological fundamentals*, Information and Indicators Program for Disaster Risk Management, IADB/ECLAC/IDEA

CSD. Indicators of Sustainable Development of the United Nations Commission on Sustainable Development (CSD – 1997):

“Comprehensive Hazard and Risk Management” (CHARM). A disaster risk management tool, adapted from the Australian and New Zealand Standards Associations Standard AS/NZS 4360 Risk Management and called “Comprehensive Hazard and Risk Management” (CHARM).

Department for International Development *Disaster risk reduction: a development concern A scoping study on links between disaster risk reduction, poverty and development* <http://www.dfid.gov.uk/pubs/files/drr-scoping-study.pdf>

ECLAC. <http://www3.cepal.org.mx/iadb-eclac-project> .

Emergency Management Australia 2004 *Manual 5 Emergency Risk Management: Applications Guide Commonwealth of Australia* <http://www.ema.gov.au/agd/ema/emainternet.nsf/Page/RWP89548ED2A342E9A3CA256F4D00019F8C>

ENSO. <http://www.unisdr.org/HFdialogue/download/tp1-Paper-ENSO-Revista-Dialogo-Andino-2003.pdf>

Development Partnership Forum, 2002. Managing for Development Results and Aid Effectiveness. The European Commission, Brussels.

The European Commission Humanitarian Office Composite Vulnerability Index <http://www.disaster.info.desastres.net/dipecho>

European Environment Agency’s environmental indicators http://www.eea.eu.int/all_indicators_box

IDB-IDEA. System of Indicators web site <http://idea.unalmz.edu.co>

IFRC World Disasters Reports <http://www.ifrc.org>

The IISD Consultative Group on Sustainable Development Indicators <http://www.iisd.org/cgsdi/>

Inter-American Development Bank 2005 *Indicators of Disaster Risk and Risk Management* Summary Report for WCDR <http://www.iadb.org/publications/search.cfm?language=English&keywords=&title=disaster&author=&topics=&countries=&searchLang=&fromYear=&toYear=&x=17&y=6>

International Council for Science Scoping Group on Natural and human-induced environmental hazards Report to ICSU General Assembly, Suzhou, October 2005 [http://ochamail.un.org/mail/hfdialog.nsf/0/766DAFED3220BFA9852570930039B246/\\$File/hazards%20report%20final.doc?OpenElement](http://ochamail.un.org/mail/hfdialog.nsf/0/766DAFED3220BFA9852570930039B246/$File/hazards%20report%20final.doc?OpenElement)

ISDR 2004 *Living With Risk: A Global Review of Disaster Reduction Initiatives*, New York and Geneva, United Nations http://www.unisdr.org/eng/about_isdr/bd-lwr-2004-eng.htm

Janssen, R, and Van Herwijnen, M. (1994) Multiobjective decision support for environmental management + DEFINITE Decisions on a FINITE set of alternatives : demonstration disks and instruction. Kluwer Academic Publishers, Dordrecht (Netherlands). 232 p., 16 p. + two 3,5” disks. ISBN 0-7923-1908-7 Saaty, T. (1980) *The Analytical Hierarchy Process*. New York, McGraw Hill

La Trobe, S and Davis, I *Mainstreaming disaster risk reduction: a tool for development organisations* Tearfund January 2005, 100 Church Road, Teddington, Middlesex, TW11 8QE, UK <http://www.tearfund.org/Campaigning/Policy+and+research/Climate+change+and+disasters+policy/>

New Zealand, the Ministry of Civil Defence and Emergency Management. National Civil Defence Emergency Management Plan. [http://www.civildefence.govt.nz/memwebsite.nsf/Files/Proposed%20National%20CDEM%20Plan/\\$file/Proposed%20National%20CDEM%20Plan.pdf](http://www.civildefence.govt.nz/memwebsite.nsf/Files/Proposed%20National%20CDEM%20Plan/$file/Proposed%20National%20CDEM%20Plan.pdf)

OCHA newsletters on education and training [http://ochamail.un.org/mail/hfdialog.nsf/0/957293DAB7C23A1485257093005AF51C/\\$File/Features.doc?OpenElement](http://ochamail.un.org/mail/hfdialog.nsf/0/957293DAB7C23A1485257093005AF51C/$File/Features.doc?OpenElement)

OECD. Environmental Indicators of the Organization for Economic Cooperation and Development (1994). <http://www.oecd.org>

OECD, 2002. Guidelines for the use of indicators in country performance assessment. Room Document 3, DAC

Oxfam America. Cuba information on disaster risk reduction practice in Cuba is available in a report produced by Oxfam America at: http://www.oxfamamerica.org/newsandpublications/publications/research_reports/art7111.html

Pan American Health Organization. Health Indicators: Basic Elements for the Health Situation Analysis. Epidemiological Bulletin PAHO, 2001

The ProVention Consortium. “Measuring Mitigation” http://www.proventionconsortium.org/files/measuring_mitigation/Measuring_Mitigation_report.pdf see chapter 9).

Saaty, T. 1980. Pairwise Comparison.

Serageldin and Steer, World Bank: 1994. “Capital Theory”

South Africa A national policy framework structured around Key Performance Areas and Enablers (see <http://sandmc.pwv.gov.za/NewSite/Framework1.htm>; comprehensive framework for multi-sector DRR in South Africa. PhD thesis can be downloaded from <http://acds.co.za/dvnPhdnew2.pdf>

The Pacific Island States Comprehensive Hazard and Risk Management Program (CHARM) <http://www.sopac.org.fj>

Indicators of Progress

Environmental Vulnerability Index, of the Programme of the South Pacific Applied Geoscience Commission, and the South Pacific Regional Environmental Programme <http://www.sopac.org/Projects/Evi/index.html>

Sustainability Indicators: Report of the project on Indicators of Sustainable Development. Bedrich Moldan and Suzanne Billharz (editors). SCOPE 58. John Wiley & Sons, Chichester and New York, 1997.

Tearfund 2005. <http://www.unisdr.org/HFdialogue/download/tp2-Tearfund-Mainstreaming-drr.pdf>

Tearfund – ISDR 2006 <http://www.unisdr.org/HFdialogue/download/tp2-Tearfund-Indicators-measuring-mainstreaming.doc>

Twigg, J. 2004 *Good Practice Review: Disaster Risk Reduction*, Overseas Development Institute, London <http://www.odi.org.uk/publications/hpngpr.html>

United Nations *Road map towards the implementation of the United Nations Millennium Declaration Report of the Secretary-General to the General Assembly* September 2001 <http://www.un.org/documents/ga/docs/56/a56326.pdf>

The UN Millennium Development Goals and related indicators <http://www.un.org/millenniumgoals>

UN System Water Resource Indicator-Based Reporting System: Water for People, Water for Life: The UN World Water Development UNESCO. 2003

The UN Development Group Common Country Assessment framework, and The UN Development Assistance Framework <http://www.undp.org>

UNDP. Human Development Index of the United Nations Development Programme. <http://www.undp.org>

UNDP 2005. *Reducing Disaster Risk A Challenge For Development* Bureau for Crisis Prevention and Recovery <http://www.undp.org/bcpr/disred/rdr.htm>

UN/ECE 2000. Task Force on Monitoring and Assessment Guidelines

UNEP Global Environmental Outlooks <http://www.unep.org/geo>

United Nations Environment Programme Global Environment Outlook Geo Data Portal¹ <http://geodata.grid.unep.ch/>

UNESCO/ World Water Assessment Programme 2003 *Water for People, Water for Life United Nations World Water Development Report* (chapter 3) <http://www.unesco.org/water/wwap/wwdr>

UNESCO/World Water Assessment Programme, Case Studies, Greater Tokyo Region (Japan) http://www.unesco.org/water/wwap/case_studies/tokyo/index.shtml

UN-HABITAT housing and urban indicators <http://www.unchs.org/guo>

United Nations International Strategy for Disaster Reduction, UN/ISDR. A Report for the ISDR Inter-Agency Task force on Disaster Reduction Working Group 3: Risk, Vulnerability and Disaster Impact Assessment 2004 *Visions of Risk: A Review of International Indicators of Disaster Risk and its Management* <http://www.unisdr.org/HFdialogue/download/tp1-visionsofrisk.pdf>

¹ The GEO Data Portal is the authoritative source for data sets used by UNEP and its partners in the Global Environment Outlook (GEO) report and other integrated environment assessments. Its online database holds more than 450 different variables, as national, subregional, regional and global statistics or as geospatial data sets (maps), covering themes like Freshwater, Population, Forests, Emissions, Climate, Disasters, Health and GDP. Display them on-the-fly as maps, graphs, data tables or download the data in different formats.

UN/ISDR.2005. Background material on criteria for benchmarks and indicators : Example of indicators to measure the implementation of the Hyogo Framework for Action. http://www.unisdr.org/eng/task%20force/tf-meetigns/11th-TF-mtg/IATF_DR_11_SE_indicatorsbackground.doc

UN/ISDR. 2005 Brief note on discussion of the Working Group on indicators to measure progress in relation to the Hyogo Framework for Action Implementation - Eleventh Session of the Inter-Agency Task Force on Disaster Reduction. http://www.unisdr.org/eng/task force/tf-meetigns/11th-TF-mtg/IATF_DR_11_SE_indicatorsReport.doc

UN/ISDR 2007. Words into Action: A Guide for Implementing the Hyogo Framework. <http://www.unisdr.org/>

UN/ISDR. Strategic Directions for the ISDR System to Assist the Implementation of the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters (Document of the UN Inter-Agency Task Force on Disaster Reduction) http://www.unisdr.org/eng/task%20force/tf-meetigns/11th-TF-mtg/IATF_DR_11_strategic_directions.doc

UN/ISDR. Summary of the Hyogo Framework for Action 2005 – 2015: Building the Resilience of Nations and Communities to Disasters (Hyogo Framework) <http://www.unisdr.org/eng/HF/summary-HFP-2005-2015.pdf>

UN/ISDR. World Conference on Disaster Reduction 18-22 January 2005, Kobe, Hyogo, Japan: Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters (Extract from the final report of the World Conference on Disaster Reduction (A/CONF.206/6) <http://www.unisdr.org/eng/HF/Hyogo-framework-for-action-english.pdf>

World Bank social indicators and environmental reviews <http://www.worldbank.org/data>, <http://www.worldbank.org/poverty/data> and <http://www.worldbank.org/environment>

World Conference on Disaster Reduction 18-22 January 2005, Kobe, Hyogo, Japan *Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters* <http://www.unisdr.org/wcdr/intergover/official-doc/L-docs/Hyogo-framework-for-action-english.pdf>

WRI. Water Indicators developed by the World Resources Institute (WRI – 1998): <http://www.wri.org/publication/content/8350>

World Health Organization ‘Health for all’ indicators <http://www.who.int>

World Summit for Sustainable Development Plan of Implementation and follow up activities <http://www.johannesburgsummit.org>

B. Web Pages

Useful Websites

Additional discussion on vulnerability and resilience can be found on the following web sites:

- DFID funded report (Twigg, J et. al.) about NGOs on indicators for DRR activities at the community level (forthcoming) http://www.benfieldhrc.org/disaster_studies
- ProVention Consortium <http://www.proventionconsortium.org>
- University of Delaware, USA set of reports on the evaluation of the pilot phase of the FEMA Disaster-Resistant Community Initiative Project Impact <http://www.udel.edu/DRC/projectimpact.html>
- UN University Institute for Environment and Human Security (UNU-EHS): Expert Working Group on “Measuring Vulnerability to Hazards of Natural Origin” <http://www.ehs.unu.edu/index.php/category:5?menu=18>
- Stockholm Environmental Institute 2001 workshop; on related resources see <http://www.sei.se/risk/appendixc.html>

Further discussion on indicators can be found on the following web sites

- Earthquake Megacities Initiative (EMI): A Disaster Management Indicator System for Bogotá, Colombia. <http://emi.pdc.org/soundpractices/Bogota/SP3-Bogota-Indicators-System.pdf>
- “Indicator Issues and Proposed Framework for a Disaster Preparedness Index (DPI)” study from The Center for Hazards Research and Policy Development at the University of Louisville <http://hazardcenter.louisville.edu/pdfs/wp0603.pdf>
- Centre for Ecology & Hydrology’s work on a Water Poverty Index (WPI), Natural Environment Research Council <http://www.ceh.ac.uk/sections/ph/WaterPovertyIndex.html>
- Climate Vulnerability Index <http://www.ceh.ac.uk/sections/ph/ClimateVulnerabilityIndex.html>
- Tsunami Recovery Indicators Project – TRIAMS http://www.proventionconsortium.org/themes/default/pdfs/TRIAMS_full_paper.pdf
- International Development Research Centre, www.idrc.ca

Hyogo Framework for Action

The full text of the Hyogo Framework for Action is available at the ISDR website <http://www.unisdr.org/eng/HFA/HFA.htm> (also available in the other UN languages – French, Spanish, Chinese, Arabic and Russian.)

See also <http://www.unisdr.org/eng/hfa/docs/Words-into-action/Words-Into-Action.pdf>

MDGs

See the MDG web pages <http://mdgs.un.org/unsd/mdg/Default.aspx>

<http://www.unisdr.org/mdgs-drr-dialogue>

Regional issues/MDGs

UNESCAP: 2006 Workshop on Statistics for Monitoring the Achievement of the MDGs in Asia and the Pacific <http://www.unescap.org/stat/meet/MDG2006/index.asp> and <http://www.un.org/special-rep/ohrlls/sid/default.htm>



International Strategy for Disaster Reduction

H F A

Annex 6

Links between disaster risk reduction priorities
and Millenium Development Goals

Indicators of Progress

Guidance on Measuring the Reduction
of Disaster Risks and the Implementation
of the Hyogo Framework for Action



United Nations

Indicators of Progress

Links between disaster risk reduction priorities and Millenium Development Goals

To reflect the interaction between the MDGs and disaster risk reduction, indicators have been developed to monitor whether interventions to attain MDGs are in fact reducing disaster risk. These indicators are based on the measures laid out in the Road map towards the implementation of the United Nations Millennium Declaration (Secretary-General Report to GA A/56/326), but have been modified to capture the risk reduction element. These modified indicators are displayed in the table below. States may wish to adopt these indicators for national use.

Table 4: Millennium Development Goal indicators modified to capture disaster risk reduction

Goals and Targets		Indicators
Goal 1. Eradicate extreme poverty and hunger		
Target 1	Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day	Proportion of population below \$1 per day does not fluctuate with variations in hydro-meteorological phenomenon (rainfall, cyclones, floods) and hazard events like earthquakes
		Share of poorest quintile in national consumption does not decline in years of extreme weather and hazard events like cyclones, earthquakes
		Proportion of population below 1 dollar a day provided for by safety-nets by provision of alternative livelihoods through micro credits, cash-for-work and insurance
Target 2	Halve, between 1990 and 2015, the proportion of people who suffer from hunger	Prevalence of underweight children (under five years of age) does not increase during occurrence of major hazard event
		Proportion of population below minimum level of dietary energy consumption does not increase in years of major hazard events
Goal 2. Achieve universal primary education		
Target 3	Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	Percentage of primary schools certified to be in conformity with hazard resistant standards relevant for the region
Goal 7. Ensure environmental sustainability		
Target 9	Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources	Percentage area complying with enforcement of no development or no construction by laws on lands classified in land use plans to be at high risk as per hazard risk maps
Target 10	Halve by 2015 the proportion of people without sustainable access to safe drinking	Proportion of population with sustainable access to an improved water source not susceptible to destruction or depletion by natural hazards like floods, droughts and seismic and cyclone risks
Target 11	By 2020 to have achieved a significant improvement in the lives of at least 100 million slum dwellers	Proportion of people with access to secure land tenure not located in high-risk hazard prone zones e.g., land slide or flood prone or seismic zones

Goal 8. Develop a global partnership for development		
Target 12	Develop further an open, rule-based, predictable, non-discriminatory trading and financial system	Includes a commitment to good governance, development, and poverty reduction — both nationally and internationally more generous ODA for countries committed to poverty reduction
Target 14	Address the special needs of landlocked countries small island developing States	Proportion of ODA directed towards disaster risk reduction activities
Target 15	Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term	Proportion of exports (by value and excluding arms) admitted free of duties and quotas from countries at high disaster risk
		Proportion of ODA provided to help build trade capacity to develop alternatives sources of livelihoods which are resilient to disaster risks
		Proportion of official bilateral HIPC debt cancelled particularly proportion of those countries at high risk
Target 18	In cooperation with the private sector, make available the benefits of new technologies, especially information and communications	Telephone lines per 1,000 people particularly in high hazard risk zones

Indicators of Progress

Suggested Measures to incorporate Disaster Risk Reduction into Areas of Intervention to ensure that MDG based Needs Assessments are sensitive to reducing Risk

Very often, efforts to attain the MDG targets can inadvertently increase the level of disaster risk. There is no simple solution to the problem, but measures can be taken to incorporate disaster risk reduction into MDG strategies. Key to this approach is direct community participation in defining and accepting acceptable risk. The table below identifies some potential conflicts by targets and sectors, and outlines suggested measures that can protect against inadvertent increases in disaster risk.

Table 5: Suggested measures to incorporate disaster risk reduction into MDG strategies

Income Poverty (MDG 1 Target 1)	
Agriculture	While increasing agricultural productivity to raise the incomes of the rural poor and generate rural jobs, critical to provide for drought resistant cropping strategies, including contingency cropping patterns to match late or early rains, (floods or droughts), closely linked to meteorological monitoring and forecasting
Environment	As many poor people depend on natural resources for their livelihoods, improving natural resource management can sustain or even raise their incomes in a sustainable manner if ecological conservation, sustainable use of bio mass based resources is factored in
Water and Sanitation	While improved water supply for productive activities can raise economic growth through agriculture and the urban manufacturing and service sectors, care has to be taken to ensure balanced utilisation of ground water where extraction does not exceed the natural rates of re-charge, and measures to enhance ground water recharge and conservation need to be dovetailed to prevent losses from future droughts and floods on account of ground water depletion
Slum upgrading and urban planning	While providing security of tenure can improve labour market participation and access to credit markets, care has to be ensured to enforce and apply land use by laws which are consistent with hazard risk mapping; landslide prone slopes and flood prone river banks should be ecologically conserved while providing hazard safe and livelihood accessible areas to slum dwellers
	Urban infrastructure, including transport systems, is necessary for establishing manufacturing and service industries, but should be made hazard resilient through retrofitting and strengthening to conform to assessed hazard risks.
Transport	Roads, railroads, and ports lower transport costs and thereby increase the real incomes of the poor, but these need to be made hazard resilient by suitable safety standards to guard against earthquakes, cyclones, Tsunamis, as per the local risk mapping, and ensure that roads and infrastructure do not block natural drainages, or create landslide risk.

Hunger (MDG 1 Target 2)	
Agriculture	Increasing agricultural productivity through investments in soil health, water management, extension services, and research increases food availability for subsistence farmers, but needs special focus on mitigating the impact of hydro- meteorological fluctuations through multiple cropping, water conservation and biological control measures, with contingency cropping strategies linked to weather monitoring early warning systems
Rural Incomes and Access to Markets	Improved access to credit, should also include access to credit for disaster proofing livelihoods like water and soil conservation measures at subsidised interest and micro insurance to cover hydro-meteorological extreme events
Gender Equality	Land rights allow women to increase agricultural production, reducing vulnerability of women headed households to disaster risk

Environment	Water storage and water management infrastructure improve water management for agriculture, but should integrate measures to make this structurally hazard resistant, e.g. check dams in seismic zones to be seismically safe, or in landslide zones to be consistent with soil stabilisation measures
Science and Technology	Increased agricultural research is critical for improving seed varieties, cropping systems, pest control, and water management to increase agricultural productivity, thus reducing hunger, but should provide special focus on ensuring drought resistance, and adaptability to climatic changes and emerging disaster risks
	While ICT improves farmers' market information, raising agricultural production, it should also be deployed to provide early warning regarding hydro meteorological fluctuations to enable farmers to change cropping patterns
Energy	Improved access to electricity and liquid fuels can power diesel pumps for irrigation, but increased exploitation of ground water can deplete the water table and increase the risk of drought
Transport	Footpaths and feeder, district and national roads lower the cost of agricultural inputs, increase farm gate prices, and facilitate marketing, which can increase agricultural production, but care has to be taken in fragile mountain landslide prone zones to ensure soil stability and prevention of flash floods by blocking natural drainages

Primary Education (MDG 2 Target 3)	
Education	Increase access to improved primary and secondary schools as well as adult literacy programs through provision of infrastructure; should be made disaster proof by ensuring that school infrastructure is of hazard resistant standards, e.g. in seismic zones or on tropical coastal zones affected by cyclones etc. Learning materials should include knowledge on disaster risks and safety.

Gender Equality (MDG 3 Target 4)	
Gender Interventions (not specified elsewhere)	Improved women's participation in decision-making processes including by making them aware of disaster risks, preparedness measures, will reinforce traditional coping measures of women and increase disaster resilience of communities

Maternal Mortality (MDG 5 Target 6)	
Health Interventions	While strengthening health systems is critical to achieving this MDG., it is essential to ensure that health infrastructure particularly at local level, e.g. primary health centres, rural hospitals are in conformity with building standards to be resistant to local seismic, flood cyclone and other hazard risks

HIV/AIDS (MDG 6 Target 7)	
Health Interventions	As per above

Reverse loss of environmental resources (MDG 7 Target 9) All of these measures also reduces disaster risks	
Environmental Interventions	<p>Improve management of natural resources through market mechanisms, strengthened regulation and enforcement, and investments in the management of critical ecosystems, including disaster risk assessments and mapping to ensure measures to counter environmental losses.</p> <p>Protection of ecosystems (including mangroves) to strengthen disaster resilience and reduce losses.</p>
Agriculture	Investments in soil health replenish soils and prevent further land degradation
	Intensive agricultural production is an alternative to slash-and-burn and to the deforestation that results
	Small-scale water management can restore water tables and prevent runoff
Gender Equality	Equal access to property rights allows women, as primary users, to manage natural resources in a sustainable manner
Health	Family planning access reduces total fertility rates to levels people desire, thus mitigating population pressures on the environment
Water and Sanitation	Improved sanitation and sewage treatment can reduce environmental pollution
	Integrated water resources management can ensure sufficient “green water” necessary for ecosystem functioning
	Hydrological monitoring systems can help protect aquifers and freshwater ecosystems from excessive withdrawals
Slum upgrading and urban planning	Slum upgrading and improved urban water and waste management infrastructure reduce environmental pollution
Science and Technology	Research can improve natural resource management (including management of freshwater ecosystems and wetlands, biodiversity conservation)
Energy	Access to modern cooking fuels reduces demand for biomass cooking fuels, thus reducing pressure on marginal lands and forests
	Improved energy services reduce outdoor air pollution
	Improved energy services can reduce carbon emissions

Water and Sanitation (MDG 7 Target 10) All of these measures simultaneously reduces disaster risks	
Water and Sanitation	Provide, operate, and maintain water and sanitation infrastructure and services in conjunction with behaviour change programs to improve household hygiene
Agriculture	Small-scale water management increases water availability for rural farmers
Education	Education and literacy programs improve hygiene
Gender Equality	Political representation allows women to ensure that access to water is a priority in local decision making
Environment	Improved management of wetlands, water catchments areas, and freshwater ecosystems is critical for ensuring access to drinking water
	Control of industrial pollution improves drinking water quality
Slum upgrading and urban planning	Slum upgrading reduces water pollution and improves drinking water quality
	Improved urban infrastructure ensures the separation of sewage from drinking water supplies
Science and Technology	Research can help improve sanitation and water management techniques
	Access to higher education increases the supply of trained workers to design and manage water supply and sewer infrastructure
Energy	Electricity and improved access to modern fuels are necessary to power water supply infrastructure and water treatment systems

Information and Communications Technology (MDG 8 Target 18)	
Direct Interventions	Steps to strengthen science advisory mechanisms, invest in higher education and research, promote private sector development, and improve access to communications technologies, can be linked to better hydro meteorological monitoring, seismic risks monitoring, and possibility of feeding into better early warning systems to save both lives and livelihoods



International Strategy for Disaster Reduction

H F A

Annex 7

The Hyogo Framework for Action 2005 - 2015: Building the Resilience of Nations and Communities to Disasters

Indicators of Progress

Guidance on Measuring the Reduction of Disaster Risks and the Implementation of the Hyogo Framework for Action



United Nations

Indicators of Progress

This annex contains supplemental information on the Hyogo Framework for Action related to the Guide.

Authorization for this Guide: Section E (33)(c) of the Hyogo Framework for Action tasked the UN/ISDR; in consultation with the scientific community, academia, and regional and national institutions and organizations; with developing a common set of indicators, as follows:

E. The International Strategy for Disaster Reduction

33. The partners in the International Strategy for Disaster Reduction, in particular, the Inter-Agency Task Force on Disaster Reduction and its members, in collaboration with relevant national, regional, international and United Nations bodies and supported by the inter-agency secretariat for the International Strategy for Disaster Reduction, are requested to assist in implementing this Framework for Action as follows, subject to the decisions taken upon completion of the review process [22] of the current mechanism and institutional arrangements:...

...(c) Consult with relevant United Nations agencies and organizations, regional and multilateral organizations and technical and scientific institutions, as well as interested States and civil society, with the view to developing generic, realistic and measurable indicators, keeping in mind available resources of individual States. These indicators could assist States to assess their progress in the implementation of the Framework of Action. The indicators should be in conformity with the internationally agreed development goals, including those contained in the Millennium Declaration; Once that first stage has been completed, States are encouraged to develop or refine indicators at the national level reflecting their individual disaster risk reduction priorities, drawing upon the generic indicators.

Context for the Guide: The Hyogo Framework for Action and related resolutions make several additional references to the value and need for indicators.

The Hyogo Framework for Action was adopted at the 9th plenary meeting, on 22 January 2005, of the World Conference on Disaster Reduction. At the same time, the Conference also adapted the Hyogo Declaration. In the Declaration, states explained their interest in indicators in the context of ensuring that the Hyogo Framework for Action be translated into concrete actions, as follows (*italics added*):

6. ...it is critically important that the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters be translated into concrete actions at all levels and that achievements are followed up through the International Strategy for Disaster Reduction, in order to reduce disaster risks and vulnerabilities. *We also recognize the need to develop indicators to track progress on disaster risk reduction activities as appropriate to particular circumstances and capacities as part of the effort to realize the expected outcome and strategic goals set in the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters.*

From the Hyogo Framework for Action, Part III: Priorities for action 2005–2015. Section B, Priority 1:

16. Countries that develop policy, legislative and institutional frameworks for disaster risk reduction and that are able to develop and track progress through specific and measurable indicators have greater capacity to manage risks and to achieve widespread consensus for, engagement in and compliance with disaster risk reduction measures across all sectors of society.

The Hyogo Framework for Action also explicitly tasks states, regional and international organizations and other actors concerned with disaster risk reduction with the creation of indicators.

(From the Hyogo Framework for Action, Part III: Priorities for action 2005–2015. Section B, Priority 2, Key Activity

(i): National and local risk assessments:)

(b) Develop systems of indicators of disaster risk and vulnerability at national and sub-national scales that will enable decision-makers to assess the impact of disasters² on social, economic and environmental conditions and disseminate the results to decision makers, the public and populations at risk.

(c) Record, analyse, summarize and disseminate statistical information on disaster occurrence, impacts and losses, on a regular basis through international, regional, national and local mechanisms.

² Vulnerability is defined as: “The conditions determined by physical, social, economic, and environmental factors or processes, which increase the susceptibility of a community to the impact of hazards”. UN/ISDR. Geneva 2004. Hazard is defined as: “A potentially damaging physical event, phenomenon or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation. Hazards can include latent conditions that may represent future threats and can have different origins: natural (geological, hydrometeorological and biological) or induced by human processes (environmental degradation and technological hazards)” UN/ISDR. Geneva 2004. The scope of this Framework for Action encompasses disasters caused by hazards of national origin and related environmental and technological hazards and risks. It thus reflects a holistic and multi- hazard approach to disaster risk management and the relationship, between them which can have a significant impact on social, economic, cultural and environmental systems, as stressed in the Yokohama Strategy (section I, part B, letter I, p. 8).



International Strategy for Disaster Reduction

H F A

Annex 8

Summary and Outcomes of the online dialogue of 2005

Indicators of Progress

Guidance on Measuring the Reduction
of Disaster Risks and the Implementation
of the Hyogo Framework for Action



United Nations

Assessing progress towards disaster risk reduction within the context of the Hyogo Framework for Action

HF Dialogue Final Summary³

Philip Buckle and Graham Marsh
Moderators

A Personal Note

To begin with we, Philip Buckle and Graham Marsh, the moderators of this dialogue would like to personally thank all the contributors. We were impressed by all the information, comments and resources offered from around the world and we acknowledge the commitment of all the contributors.

Personally we noted the contributions of our previous colleagues in Australia.

We want to thank particularly Paola Albrito, Mario Barrantes and Helena Molin-Valdes and Sálvano Briceño, all from UN/ISDR. Paola drove the dialogue and worked long hours (we know because we telephoned her early in the morning and late at night), Mario provided professional technical expertise on setting up the email system and the website and Helena provided us with impetus. Sálvano as Director of UNISDR agreed to and supported this dialogue which we think has enriched debate on Disaster Risk Reduction around the world.

Background and Moderators note

What follows is a summary of the full online dialogue conducted for United Nations International Strategy for Disaster Reduction (UNISDR) to assist them in their nominated task of identifying means of monitoring progress in disaster risk reduction as agreed in the Hyogo Framework for Action (HFA).

We have selected what we consider to be the salient points in this summary, but, of course, other people may put emphasis on different issues to us. The entire dialogue including the introductions and background documents, each individual contribution and the summary of each topic can be found on the UNISDR website at <http://www.unisdr.org/HFdialogue/>

This dialogue has run over a period of 4 weeks with 502 registered participants. The intent of the dialogue was to start a discussion on the value of having indicators with which to measure progress towards disaster risk reduction. In particular to monitor progress towards the 5 priorities for action which are:

1. Ensure that disaster risk reduction is a national and local priority with a strong institutional basis for implementation.
2. Identify, assess and monitor disaster risks and enhance early warning.
3. Use knowledge, innovation and education to build a culture of safety and resilience at all levels.
4. Reduce the underlying risk factors
5. Strengthen disaster preparedness for effective response at all levels.

The principal purpose of this dialogue is to provide commentary on, and examples for, a set of practical guidelines for governments to use in monitoring progress and to enable them to enhance their own capacity for self-assessment as a means of improving their own performance.

³ <http://www.unisdr.org/HFdialogue/download/HF-Dialogue-Final-Summary.doc>

There were 3 topics being discussed:

Topic 1: Understanding how to measure progress in disaster risk reduction 12 – 22 September 2005

Topic 2: Implementation and application of indicators 3 September - 3 October 2005

Topic 3: Procedures for Reviewing National Progress 4 - 10 October 2005

Expected results of the dialogue included:

- A common understanding on ways forward to measure progress towards disaster risk reduction as set out in the Hyogo Framework for Action.
- A summary report of the key issues and input for guidelines to develop disaster risk reduction indicators and benchmarks at national scale.
- A network of interested professionals to continue in contact for further trend analysis and progress reporting

There were a number of key discussion documents made available (see the end of this report) and our conclusion is that the dialogue generally, in some instances specifically, endorsed the approach to monitoring DRR and the use of indicators as suggested in these documents. In reference particularly to the documents “Background material on criteria for benchmarks and indicators: Example of indicators to measure the implementation of the Hyogo Framework for Action” and “Brief note on discussion of the Working Group on indicators to measure progress in relation to the Hyogo Framework for Action Implementation - Eleventh Session of the Inter-Agency Task Force on Disaster Reduction. 2005” the dialogue and the participants validated the proposed approach as set out in these papers.

Issues

It seems to us, the moderators, that there is a difficulty in coming to grips with the practicalities of defining and agreeing indicators and of identifying how these should be applied and who should be responsible. This is a complex issue that is manifest at local, regional, national and international levels and is complicated by political considerations, data availability and quality, resource availability, issues of scale, ownership and a host of other social, organisational and management concerns.

However, a number of particular matters were raised, often by numerous contributors.

There were frequent references to:

- **Issues of scale** and the need for different indicators at different levels of social/administrative organisation
- The need to take a **systemic, system wide approach** to Disaster Risk Reduction (DRR)
- The necessity for effective practice and monitoring to be inclusive and to **engage local people**.
- The need for **inclusion** of local people, communities as well as government in setting policy, goals and standards
- There was also frequent reference to the need for any **DRR activity to be a partnership**, although responsibility perhaps lies finally with national governments.
- There were numerous references to data, and in particular the need to collect **baseline data** and, where it is available, **historical data**
- Frameworks of sustainability and the Millennium Development Goals (MDGs) were mentioned by a number of contributors and these signified the need for clearly **enunciated policy and conceptual frameworks** that support the Hyogo Framework for Action itself but which are linked to a broader range of activities.
- This broader range was mentioned often with the need to invest in **mitigation and preparedness** (education and communication was mentioned often) at least as much as to invest in response capacity.

Indicators of Progress

Summary

There was some reference to the need to **define key terms** in a consistent and agreed manner, but there was less of this than expected and the UNISDR Glossary provides a common starting point.

Contributors identified the need for **qualitative indicators and performance criteria** that should be drawn from all sectors of society, Government, private sector, NGOs, CBOs but a frequent reference was to the need to engage local stakeholders and local communities in identifying indicators, standards and priorities.

DRR needs to be incorporated into **routine activities of Government, business and society** and linked intimately with development activity. Indicators of development success might be useful as indicators of DRR, provided that social, economic, political and environmental development was linked to DRR, so that disasters did not impact on development activity and development activity, in turn, did not increase disaster risk potential. Adding to this there was some argument that DRR should not be separated from development activities.

The most commonly suggested methods of identifying indicators were:

- The need to involve **local stakeholders**
- The need to **regularly update the source data**
- The **necessity of dealing with changing circumstances** and so ensuring rigour in the identification and application of indicators.

Weighting of indicators was not mentioned often, but when it was it was acknowledged as a difficult problem.

As well as investigating the usefulness of other policy frameworks there was an identified need **to learn from other risk reduction approaches** including 'gender' mainstreaming and sustainable environmental management mainstreaming

Good governance was mentioned as being necessary for effective DRR and needed to be measured and linked to macro economic data such as (GDP, per capita income) strategic measures of DRR and the development of resilience.

There was an interesting **balance of comment on technical/scientific issues and also on social issues** and this balance was seen also in the references to hazards, risk assessment and analysis of social situation.

To us this added up to the necessity for a comprehensive approach to DRR where plans and arrangements have to embrace and actively engage all sectors of society, have to deal with all hazards, often through a multi-hazard risk assessment rather than as isolated and have to be based on technical and social knowledge, learning and research.

A number of contributors said **that governments are, ultimately, accountable** although DRR is everyone business. It involves every stratum and sector of society in contributing to action and to policy. Government responsibility, however, did not remove or reduce the responsibilities and rights of local communities.

Frameworks relevant to each country for managing DRR were mentioned as an institutional issue that needs to be resolved as part of DRR.

Risk assessment and effective risk communication were identified as critical elements in DRR and special mention was made of education for risk averse behaviour. These are not new ideas but they are critical and bear repeating.

Proposed Indicators

There were a few comments indicating that there are already sets of relevant and useful indicators in place and that we should start with these. **Finding and applying the perfect, whole set of indicators would not be possible, especially**

as environmental, political, social and economic contexts and circumstances change. We would be better off seeing indicators as a 'work in progress' and using what we have are what some contributors said.

Below are some indicators mentioned in the dialogue. This is not a coherent set nor an exhaustive list, but an extraction from contributions.

Proposed Indicators (General)

- Number of lives saved
- Number of reduced injuries
- % of population significantly affected
- % of affected people able to resume sustainable livelihoods within X-days
- Compliance with codes and regulations (especially noted were building codes and land use codes)
- Adequate emergency service capability

Resilience

Resilience/capacity was suggested as an area needing measurement and possible indicators were given as:

- equity of income distribution
- educational attainment
- medical services use
- unemployment
- housing
- morbidity and mortality rates of different social groups (residence, gender, social class, age, ethnicity, etc.).
- quality of life
- livelihood sustainability
- environmental sustainability
- strength of the local economy.

Scale

Indicators may be divided into:

Country Risk Index: designed to measure the risk a country is facing, composed of disaster indicators, hazard indicators and indicators of physical and social-economical vulnerability

Country Resilience Index: designed to measure coping/adaptive capacity of a country that includes DRM strategy and plans, institution, risk awareness, financial preparation, emergency preparation.

Positive deviance" approaches documenting what helped some households or communities cope with the natural disaster and minimize its impact should provide us useful insights

DRR operations and policy

Operational and policy indicators mentioned included:

- Reaction times and degree of preparedness
- Recovery period and the degree of efficiency with which recovery is carried out
- Losses compared with recovery costs
- Cost of the disaster reduction system
- Inclusiveness of planning and management (potentially to include between emergency management, social services agencies, disabilities, minorities and other vulnerable populations, health departments, fire/police, etc

Indicators of Progress

- Adequate social support/safety net programmes to assist the vulnerable and which include: Adequate social policies that prevent near-homeless to become homeless, convicts to afford habitable housing, health services, childcare, transportation, etc also promote disaster risk reduction, because individuals are less vulnerable
- Community coping mechanisms which will serve in identifying the adaptive capacity of the community and serve as a tool for strategy and policy formulations.
- Continuity of resource and funding allocation for disaster management arrangements, including public awareness and information programmes
- The scope, relevance and availability of research findings that identify hazard, risk and vulnerability
- Processes for regularly and frequently reviewing, updating and maintaining its plans and activities.
- Collaborative networks integrating Government, industry and commerce, NGOs, professional associations, civic groups and interested individuals
- Local leadership and community cohesion as measures of resilience

The indicators that were referred to for monitoring DRR should relate to

- Hazards assessment
- Risk evaluation
- Social and demographic features

Specific indicators included:

- Potential and actual loss (life, injury, property)
- Multi-hazard risk assessment
- Plans, especially community level plans
- Logistic capacity
- Available funding
- Available equipment

Other issues mentioned included:

- The need for hazard mapping as part of the risk evaluation process
- The necessity to develop a multi-hazard index for areas, and
- The imperative to keep plans and assessment simple

Resources and case studies offered by contributors

Omar D. Cardona: The Program of Indicators developed by the Inter-American Development Bank (IDB) and the Instituto de Estudios Ambientales (IDEA) of the Universidad Nacional de Colombia Represents a sophisticated assessment methodology that measure key elements of countries' vulnerability to natural hazard events and the performance of different risk management policies and tools. The purpose of the measurements is to improve decision-makers' access to appropriate data and methodologies needed to meet the challenges of reducing and managing natural disaster risk in the region. Testing the methodology of indicators has been done in countries of the Americas (14 in all through December, 2006⁴) and included three phases: 1) the development of a conceptual framework and preliminary definition of risk/vulnerability and performance indicators for disaster risk management; 2) the design of the system of indicators and the data/information collection method; 3) the testing of the indicators in selected countries. In addition, the program had a regional technical workshop with policy-makers and experts to evaluate the assessment methodology and to disseminate results. The conceptual framework, project phases, international workshops, outcomes, reports of results and technical details can be found on the web site <http://idea.unalmzl.edu.co>.

⁴ Argentina Bolivia, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Jamaica, Mexico, Nicaragua, Peru, and Trinidad and Tobago

Enrique Castellanos: There are different methods to create an assessment model with quantitative and qualitative indicators. Briefly, all indicators must be standardized to the same value range, let say 0-1. The quantitative indicators are standardized by the mathematical function and the qualitative indicators can be standardized by Direct Method (expert opinion), Pairwise Comparison (Saaty, T.; 1980) or Rank Ordering (Janssen, R. 1994). I have successfully used it for national landslide risk assessment in Cuba in the GIS ILWIS (<http://www.itc.nl>) using the spatial multi-criteria evaluation module.

Information on disaster risk reduction practice in Cuba is available in a report produced by Oxfam America at: http://www.oxfamamerica.org/newsandpublications/publications/research_reports/art7111.html

Janssen, R, and Van Herwijnen, M. (1994) Multiobjective decision support for environmental management + DEFINITE DEcisions on an FINITE set of alternatives : demonstration disks and instruction. Kluwer Academic Publishers, Dordrecht (Netherlands). 232 p., 16 p. + two 3,5” disks. ISBN 0-7923-1908-7 Saaty, T. (1980) The Analytical Hierarchy Process. New York, McGraw Hill.

Peter Collins: International Council for Science Scoping Group on Natural and Human-induced Environmental Hazards Report to ICSU General Assembly, Suzhou, October 2005 on the OCHA web site. [http://ochamail.un.org/mail/hfdialog.nsf/0/766DAFED3220BFA9852570930039B246/\\$File/hazards%20report%20final.doc?OpenElement](http://ochamail.un.org/mail/hfdialog.nsf/0/766DAFED3220BFA9852570930039B246/$File/hazards%20report%20final.doc?OpenElement) .

Anita Dwyer: Information about the Natural Disaster Mitigation Program can be found at: <http://www.dotars.gov.au/localgovt/naturaldisasters/index.aspx> The study can be found at: http://www.ga.gov.au/image_cache/GA4267.pdf (Apologies for not yet putting this into the peer-review sphere).

Gia Gaspard: newsletters on education and training: [http://ochamail.un.org/mail/hfdialog.nsf/0/957293DAB7C23A1485257093005AF51C/\\$File/Features.doc?OpenElement](http://ochamail.un.org/mail/hfdialog.nsf/0/957293DAB7C23A1485257093005AF51C/$File/Features.doc?OpenElement)

Roger Jones, “Australia: A disaster risk management tool”, adapted from the Australian and New Zealand Standards Associations Standard AS/NZS 4360 Risk Management and called “Comprehensive Hazard and Risk Management” (CHARM).

Ilan Kelman: In New Zealand, the Ministry of Civil Defence and Emergency Management is consulting on a draft National Civil Defence Emergency Management Plan. Information about the process can be found at http://www.civildefence.govt.nz/memwebsite.nsf/wpg_URL/For-the-CDEM-Sector-Ministry-Projects-Proposed-National-CDEM-Plan?OpenDocument while the consultation draft is at [http://www.civildefence.govt.nz/memwebsite.nsf/Files/Proposed%20National%20CDEM%20Plan/\\$file/Proposed%20National%20CDEM%20Plan.pdf](http://www.civildefence.govt.nz/memwebsite.nsf/Files/Proposed%20National%20CDEM%20Plan/$file/Proposed%20National%20CDEM%20Plan.pdf) (please note that the length of the websites might cause them to break into more than one line in this email; please ensure that the entire website name is used to access the document.

Sarah La Trobe, United Kingdom <http://www.unisdr.org/HFdialogue/download/tp2-Tearfund-Mainstreaming-drr.pdf> and <http://www.unisdr.org/HFdialogue/download/tp2-Tearfund-Indicators-measuring-mainstreaming.doc>

Marla Petal: <http://www.unisdr.org/HFdialogue/download/tp1-AHEP-FDR.pdf>

Prof. R. Struzak: <http://www.unisdr.org/HFdialogue/download/tp1-IEEE-telecommunication-magazine.rtf>

John Salter: Using the seven plus or minus two rule and the risk management framework of AS/NZS4360 (the Australia New Zealand Risk Management Standard), the five point performance framework at <http://www.continuitycentral.com/EPCBFivePoint.xls> provides a useful basis for adaptation.

John Twigg: The ProVention Consortiums recent report, “Measuring Mitigation”, puts forward methodologies for assessing natural hazard risks and the net benefits of mitigation http://www.proventionconsortium.org/files/measuring_mitigation/Measuring_Mitigation_report.pdf see chapter 9).

Indicators of Progress

Dewald van Niekerk, South Africa A national policy framework structured around Key Performance Areas and Enablers (see <http://sandmc.pwv.gov.za/NewSite/Framework1.htm>; comprehensive framework for multi-sector DRR in South Africa. PhD thesis can be downloaded from <http://acds.co.za/dvnPhdnew2.pdf>

Hernan L. Villagran: <http://www.unisdr.org/HFdialogue/download/tp1-Paper-ENSO-Revista-Dialogo-Andino-2003.pdf>

Jianping Yan: http://www.unisdr.org/HFdialogue/download/tp1-CRISES_Draft.jpg

Ricardo Zapata: Another study that complements the risk management indicators developed by the Interamerican Development Bank is the ongoing work by ECLAC for IDB with five national case studies to determine: the quality of disaster-related information, the cumulative impact of disasters in those countries and the changes in their risk bearing arrangements (risk reduction, risk transfer and risk management). To see the methodological contents of those studies see: <http://www3.cepal.org.mx/iadb-eclac-project>.

For access to the ECLAC disaster evaluation methodology see: <http://www.eclac.cl/cgi-bin/getprod.asp?xml=/publicaciones/xml/7/12707/P12707.xml&camp;xsl=/mexico/tpl/p9f.xsl&camp;base=/mexico/tpl/top-bottom.xsl> , or <http://www.eclac.cl/mexico> under the heading “desastres”.

<http://www.unisdr.org/HFdialogue/download/tp1-WAYS-%20MEASURING-PROGRESS-TOWARDS-HF-OVER-PERIOD%202005.doc>

<http://www.unisdr.org/HFdialogue/download/tp1-Evaluation-risk-management-performance-m1.pdf>



International Strategy for Disaster Reduction

HFA

Annex 9

Worksheet for “HFA strategic goals status review”

Indicators of Progress

Guidance on Measuring the Reduction
of Disaster Risks and the Implementation
of the Hyogo Framework for Action



United Nations

Worksheet HFA Strategic Goals Status Review	
Status Level	Strategic Goals Process Indicators
	Level 1 – Achievements are minor and there are few signs of planning or forward action to improve the situation. Level 2 – Some achievements made but remain incomplete and without systematic policy and/ or institutional commitment Level 3 - There is some commitment and capacities to achieving DRR but progress is not substantial. Level 4 – Substantial achievement has been attained but with some recognised deficiencies in commitment, financial resources or operational capacities. Level 5 – Comprehensive achievement has been attained with commitment and capacities to sustain efforts at all levels.
1. A multisectoral disaster risk reduction platform is operational.	
2. A national disaster risk reduction policy framework exists.	
3. Dedicated resources are available for disaster risk reduction.	

Worksheet HFA Strategic Goals Status Review		Strategic Goals Process Indicators				
Status Level	Level 1 – Achievements are minor and there are few signs of planning or forward action to improve the situation.	Level 2 – Some achievements made but remain incomplete and without systematic policy and/ or institutional commitment	Level 3 - There is some commitment and capacities to achieving DRR but progress is not substantial.	Level 4 – Substantial achievement has been attained but with some recognised deficiencies in commitment, financial resources or operational capacities.	Level 5 – Comprehensive achievement has been attained with commitment and capacities to sustain efforts at all levels.	
4. National development plans include elements which address disaster risk reduction.						
5. Poverty reduction strategies include disaster risk reduction components.						
6. UN common country programming tools such as CCA/UNDAF covers elements of disaster risk reduction.						
[Etc. Add additional indicators here, as relevant to country contexts...]						



International Strategy for Disaster Reduction

HFA

Annex 10

Worksheet for “HFA Monitor”

Indicators of Progress

Guidance on Measuring the Reduction
of Disaster Risks and the Implementation
of the Hyogo Framework for Action



United Nations

A. Biennial Progress Monitoring and Review Mechanism 2007-09

1. Developing benchmarks and indicators that monitor, evaluate and report on progress in implementation of disaster risk reduction measures have evident benefits at the local, national, regional and international level.
2. Such benefits include the identification of capacity and resource gaps, increasing their importance on the political agenda, and promoting solutions through new or improved policies, plans, institutional relationships and resource allocations at the local, national, regional and international level.
3. While the motivation and the responsibility to evaluate progress towards more effective risk reduction actions rest with countries and local communities, there is a collective requirement that extends throughout the international community to increase knowledge about risk trends, and the available methodologies, tools and resources to address them.
4. In the Hyogo Framework for Action (HFA), States have identified the importance of monitoring, reviewing and reporting as an essential feature of the implementation of the Hyogo Framework. Responsibility for monitoring and reporting is mainly assigned to States, regional organizations and institutions, international organizations and the ISDR system partners and secretariat.
5. For coordination purposes at the global level, the ISDR secretariat will facilitate a biennial cycle of monitoring and reporting of progress (for the period 2007-09) on implementation of disaster risk reduction priorities, with support from relevant partners at all levels, in 2008.
6. Results of systematic reporting undertaken at all levels by a range of national, regional and international partners, will be compiled and published biennially in a *Global Assessment Report on Disaster Risk Reduction*. The ISDR system's first biennial global assessment report will be released at the upcoming second Global Platform for Disaster Risk Reduction in June 2009. The report will present an analysis of the key trends and findings from the reviews of progress undertaken at all levels, for the period 2007-09.
7. The primary objective of setting up the biennial monitoring and progress review mechanism is to capture key trends and areas of progress and challenges at the national, regional, and global level with regard to achieving the strategic goals of the HFA.

B. Mechanism - Online HFA Monitor

8. To effectively coordinate reporting on progress across countries for the biennial period of 2007-09, and with a view to systematize existing baseline data and assessments/ reviews of progress at all levels, the ISDR secretariat will create and maintain an online monitoring and review tool – the 'HFA Monitor'.
9. The online tool, to be launched online Prevention Web in May 2008 will make baseline and progress review data systematically available across the years, thereby making it convenient for countries to conduct periodic self assessments on progress with implementation of risk reduction actions.
10. User guidance and technical assistance notes will be disseminated to designated national focal points by April 2008.

C. Levels of Review: Territorial and Thematic cross-sections

Territorial Levels of Reviews:

11. Progress and challenges at 3 territorial levels will be reviewed: national, regional and international.

At national level:

- a. With the support of the HFA focal point, and as national input to the online HFA Monitor the designated national authority/ ministry/ platform (as relevant) undertake a succinct review of local and national progress and challenges in implementation of the HFA's key priorities.
- b. The nationally designated HFA focal point will facilitate and/ or complete all relevant inputs to the online *HFA Monitor tool*.
- c. Efforts to compile the national progress review will be aligned with existing mechanisms and reporting requirements to provide more specific indications of progress and challenges with regard to the HFA's implementation.
- d. This will entail building on existing reviews/ national reports/ baselines which capture efforts and trends in implementation of the HFA (such as the MDG monitoring, National Adaptation Programmes of Action and relevant plans, the United Nations 'Common Country Assessment' or specific baseline information previously compiled for the World Conference on Disaster Reduction in 2005, or the 2007 Global Review exercise on assessing progress in HFA implementation).
- e. The process will entail conducting broad consultations with partners involved in the implementation of the HFA at the national and local level. This consultation can be facilitated by the national platform mechanisms, or the United Nations Country Team, as relevant.
- f. Where inputs to the online HFA Monitor tool will prove to be a challenge, national authorities will be encouraged to use the HFA Monitor sample template – which will be available April 2008 onwards.
- g. Facilitation, technical and coordination support for organizing inputs to the national progress reviews will be provided to national authorities by sub-regional intergovernmental bodies, or the United Nations Country Team as relevant.
- h. In the absence of a functional regional body capable of coordinating national inputs across a sub/region, the ISDR's respective regional offices will provide the required support to the national authorities directly.
- i. To ensure a sufficient level of quality and representation of stakeholder views and ongoing efforts, ISDR system partners working at the country level and national coordination mechanisms/ platforms will be considered key for assisting, and informing the national progress review mechanism.

At regional and sub/regional level:

- a. Annual / periodic reports prepared by sub/regional institutions covering the issue of disaster risk reduction and recovery will be utilized to inform the analysis of the ISDR's first biennial *Global Assessment Report on Disaster Risk Reduction*.
- b. Additionally, in view of the requirements outlined by the HFA, the sub/regional bodies are requested to:
 - i. Coordinate and facilitate national inputs in their respective sub/region to ensure sufficient quality and representation of national and regional realities in the online HFA review database,
 - ii. Provide an analysis of key trends, areas in which progress has been made, and challenges encountered in implementing risk reduction and recovery activities with specific attention to trans- boundary efforts.
- c. Reviews conducted at the sub/regional and regional level will be facilitated by the ISDR's regional offices.

Indicators of Progress

Thematic Areas of Review

12. Progress reviews will simultaneously also be coordinated across broad thematic areas at the regional and international level. These include, the 'cross cutting' issues identified by the Hyogo framework:
 - a. integrated, multi hazard approach to disaster risk reduction
 - b. gender perspectives to be integrated into all disaster risk management policies, plans and decision making processes.
 - c. cultural diversity, age, and vulnerable groups to be taken into account when planning for disaster risk reduction, with particular attention to livelihood approaches, as appropriate.
 - d. both communities and local authorities to be empowered to manage and reduce disaster risk by having access to the necessary information, resources and authority to implement actions for disaster risk reduction
 - e. need to enhance cooperation and assistance at all levels, especially through sharing knowledge, technology and expertise to enhance capacity building for disaster risk reduction
 - f. all actors are encouraged to build multi-stakeholder partnerships, at all levels, as appropriate, and on a voluntary basis, to contribute to the implementation of this Framework for Action.
13. Thematic areas as defined by the 'thematic platforms' notably; early warning, risk identification, recovery and reconstruction, capacity development, environment risk management, climate change adaptation, education, gender, and urban risk, amongst others; and other areas identified by the 2007 Global Review will also be reviewed.
14. Where appropriate, inputs for the thematic area reports will be facilitated by the ISDR secretariat. The thematic platforms in turn, will be encouraged to coordinate and align their analysis of trends and progress directly with national authorities and sub/regional institutions, as relevant.

Online HFA Monitor tool: How to use it

The HFA Monitor tool has been designed and coordinated by the UN/ ISDR secretariat and will be hosted online Prevention Web. Inputs to the online tool will lead to the generation of comprehensive National Progress Reviews for the period 2007-09, and will enable the country with easy future access to its disaster risk information and help in monitoring trends in progress across the years.

The online HFA Monitor tool will be accessible by designated national authority/ HFA focal points May 2008 onwards. The designated focal points will receive an email notification with a user id and password from the UN/ ISDR secretariat in late April 2008 which will enable access to the online tool in May.

Until such time, it is proposed that national focal points use this as a working format to undertake national consultation processes to review progress and challenges in implementation of risk reduction and recovery actions. It will help you to discuss and record inputs from various partner consultations in a systematic manner.

To the extent possible, this sample template replicates the online HFA Monitor tool, and will give you an opportunity to familiarize yourself with the requirements of the online tool in advance of accessing it.

In May 2008, when the online HFA Monitor tool is accessible on Prevention Web, we request you to feed in all relevant analysis and information collected from partner consultations thus far recorded in the sample format into the online tool. This sample template will continue to be available as an easy to download format from Prevention Web, to facilitate ongoing national consultations and analysis.

The online HFA Monitor tool will have 8 sections to fill in – which are replicated in this sample template. Each section consists of several sub sections, as listed below.

Guidance on Measuring the Reduction of Disaster Risks and the Implementation of the Hyogo Framework for Action

All sections will have an introduction which will define the scope of the section, highlight its significance, and guide you with instructions on how to fill in the sub sections.

When you access the online HFA Monitor tool in May 2008, detailed user guidance notes will also be made available to facilitate your use of the online tool.

Please familiarize yourself with the overview of sections, and sub sections listed below. Each of these will be mandatory fields in the online HFA Monitor tool. I.e. you will be required to complete a minimum amount of information in each sub section for the report to be completed online.

You can complete the sections and sub sections in any order that facilitates information collection, partner consultations, and analysis.

1. In section 1, you will be requested to provide a statement on the current national focus with regard to each of the three strategic goals adopted under the HFA.
2. Sections 2 – 6 will help you assess the extent of progress made with regard to implementation of key activities as outlined in the HFA's five Priorities for Action.
3. Section 7 will help you assess areas or specific issues which act as 'drivers' or catalysts for achieving substantial progress in disaster risk reduction and recovery at the national and local level.
4. Section 8 will assist you with outlining overall challenges encountered in the implementation of national and local disaster risk reduction actions; and re-assess current priorities to provide a statement on the country's future outlook with regard to national disaster risk reduction goals.

Overview of sections and sub sections in HFA Monitor template

Section 1: Strategic Goals	3 sub sections	page 6
Section 2: Priority for Action 1	4 sub sections	page 9
Section 3: Priority for Action 2	4 sub sections	page 13
Section 4: Priority for Action 3	4 sub sections	page 16
Section 5: Priority for Action 4	6 sub sections	page 19
Section 6: Priority for Action 5	4 sub sections	page 22
Section 7: Drivers of Progress	6 sub sections	page 25
Section 8: Future Outlook	3 sub sections	page 28

HFA Monitor Template

Section 1: Strategic Goals

Strategic Goals: Definition and significance

With the adoption of the Hyogo Framework for Action in 2005 by 168 States, the following three strategic goals were outlined to guide activities on disaster risk reduction and recovery across all levels:

- a. the more effective *integration of disaster risk considerations into sustainable development policies, planning and programming at all levels*, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction;
- b. the *development and strengthening of institutions, mechanisms and capacities at all levels*, in particular at the community level, that can systematically contribute to building resilience to hazards;
- c. The *systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes* in the reconstruction of affected communities.

Guidance for this section

- A. The objective of this section is to provide a statement on the current national focus with regard to each of the three strategic goals adopted under the HFA.
- B. Express each statement as a 'goal' reflecting national level efforts and commitments, towards achieving each of the three HFA strategic goals.
- C. The statements should emphasize the key focus areas adopted, for reducing disaster and environmental risks at the national and local levels.
- D. The strategic goals statement should reflect the actions undertaken for each of the five HFA priorities for action.
- E. This section has three sub sections to be filled in, corresponding to each of the three strategic goals.

Sub sections

Strategic Goal Area 1

Integration of DRR into sustainable development policies and planning

Strategic Goal Statement (50 words max.)

Strategic Goal Area 2

Development and strengthening on institutions, mechanisms and capacities to build resilience to hazards

Strategic Goal Statement (50 words max.)

Strategic Goal Area 3

Systematic incorporation of risk reduction approaches into the implementation of emergency preparedness, response and recovery programmes

Strategic Goal Statement (50 words max.)

Examples:

Some hypothetical examples of areas that could be reflected by strategic goal statements are provided below. No doubt, country specific strategic goal statements will in reality be more contextual and detailed with a precise indication of the national level goal relevant to each strategic goal area.

- a. Area 1: Integration of DRR into sustainable development policies and planning
Please reflect how you have, or plan to, integrate disaster risk reduction into sustainable development policies and planning.

Example 1: Disaster and environmental risk management policies integrated into development plans at the national, sub national and local levels.

Example 2: Innovative mechanisms to reduce underlying risk institutionalized, including risk transfer schemes (including Microfinance) and adoption of environmentally safe technologies.

- b. Area 2: Development and strengthening of institutions, mechanisms and capacities to build resilience to hazards
Please reflect how you have, or plan to, develop and strengthen institutions, mechanisms and capacities to build resilience to hazards at the national and sub national levels.

Indicators of Progress

Example 1: Strengthened capacities at community level for participatory, inclusive and integrated planning for post-disaster recovery and environment risk management.

Example 2: Enhanced capacities at all levels to monitor and respond to potential disaster and environmental risks of national, regional and international concern.

- c. Area 3: Systematic incorporation of risk reduction approaches into the implementation of emergency preparedness, response and recovery programmes.

Please reflect how you have, or plan to, systematically incorporate risk reduction approaches into the implementation of emergency preparedness, response and recovery programmes.

Example 1: A strengthened policy framework and implementation capacity of large scale state and national programmes to reduce physical and socio-economic vulnerabilities, for the achievement of 11th Plan Goals.

Example 2: Mechanisms and tools for the implementation of environmental management and post-disaster recovery programmes are institutionalized at all levels.

Section II: Priority for Action 1

HFA five priorities for action

Drawing on the conclusions of the review of the Yokohama strategy, on the basis of the deliberations at the World Conference on Disaster Reduction, and especially the agreed expected outcome and strategic goals, the Conference adopted the following five priorities for action in 2005:

1. Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.
2. Identify, assess and monitor disaster risks and enhance early warning.
3. Use knowledge, innovation and education to build a culture of safety and resilience at all levels.
4. Reduce the underlying risk factors.
5. Strengthen disaster preparedness for effective response at all levels.

The HFA outlines that, in their approach to disaster risk reduction, States, regional and international organizations and other actors concerned should take into consideration the key activities listed under each of these five priorities and should implement them, as appropriate, to their own circumstances and capacities.

Guidance for sections 2-6: HFA five Priorities for Action

- A. The objective of these five sections is to help you assess the extent of progress made with regard to implementation of key activities as outlined in the HFA's Priorities for Action 1.
- B. Mark a suitable level of progress, which realistically reflects the extent and nature of progress made with regard to implementing the 'core indicators' listed under each priority for action.
- C. Each sub section will give you space to describe some of the key contextual reasons for the country's ranking/assessment at the indicated level.
- D. *Highlight key challenges* encountered by the national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

Priority for action 1: Definition and significance

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

Countries that develop policy, legislative and institutional frameworks for disaster risk reduction and that are able to develop and track progress through specific and measurable indicators have greater capacity to manage risks and to achieve widespread consensus for, engagement in and compliance with disaster risk reduction measures across all sectors of society.

In view of the areas outlined in the HFA, Priority for Action 1 has four 'core indicators' on which progress and challenges on implementation can be monitored and reviewed:

1. National policy and legal framework for disaster risk reduction exists with decentralised responsibilities and capacities at all levels.
2. Dedicated and adequate resources are available to implement disaster risk reduction activities at all administrative levels
3. Community participation and decentralization are ensured through the delegation of authority and resources to local levels
4. A national multi sectoral platform for disaster risk reduction is functioning

Indicators of Progress

Sub sections

- a. Core Indicator 1: National policy and legal framework for DRR exists with explicit responsibilities defined for all levels of government

A country's constitution, laws, and governmental system provide the basis to develop plans and insitutional arrangements for all areas of disaster risk reduction. Assessing such elements can reveal gaps in resources and capacities that were previously under-utilised or untapped. A comprehensive disaster risk reduction policy framework can also guide a government in its disaster risk reduction policies and strategies.

Level of Progress

The levels of progress will enable a self assessment of the extent to which the policies, programmes and initiatives are sustainable in achieving the indicated risk reduction objectives.

- 1 – Minor progress with few signs of forward action in plans or policy
- 2 – Some progress, but without systematic policy and/or institutional commitment
- 3 – Institutional commitment attained, but achievements are neither comprehensive nor substantial
- 4 – Substantial achievement attained but with recognized limitations in capacities and resources
- 5 – Comprehensive achievement with sustained commitment and capacities at all levels

Example to help determine the Level of Progress in implementation of HFA Priorities for Action:

Level	Generic description of level of progress	Examples of an assessment of the indicator "A strategy for data provision for disaster risk reduction is in place"
5	Comprehensive achievement has been attained, with the commitment and capacities to sustain efforts at all levels.	<i>"Systematic, properly resourced processes for data collection and dissemination are in place, with evaluation, analysis and improvements being routinely undertaken. Plans and commitments are publicised and the work is well integrated into other programmes."</i>
4	Substantial achievement has been attained, but with some recognised deficiencies in commitment, financial resources or operational capacities.	<i>"Processes for data collection and dissemination are in place for all hazards and most vulnerability factors, but there are shortcomings in dissemination and analysis that are being addressed."</i>
3	There is some institutional commitment and capacities to achieving DRR but progress is not comprehensive or substantial.	<i>"There is a systematic commitment to collecting and archiving hazard data, but little awareness of data needs for determining vulnerability factors, and a lack of systematic planning and operational skills"</i>
2	Achievements have been made but are incomplete, and while improvements are planned, the commitment and capacities are limited.	<i>"Some data collection and analysis has been done in the past, but in an ad hoc way. There are plans to improve data activities, but resources and capacities are very limited."</i>
1	Achievements are minor and there are few signs of planning or forward action to improve the situation.	<i>"There is little awareness of the need to systematically collect and analyse data related to disaster events and climatic risks."</i>

Description (250 words max.)

Describe some of the key contextual reasons for the country's ranking/ assessment at the indicated level

Context and Constraints (250 words max.)

Highlight key contextual challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

For each 'core indicator' mark a level of progress, describe the national context and highlight key contextual challenges, following the above template provided for core indicator 1.

- b. **Core Indicator 2: Dedicated and adequate resources are available to implement disaster risk reduction plans and activities at all administrative levels**

Dedicated resources refer to funds that are allocated specifically for disaster risk reduction actions. Resource allocation that embeds disaster risk reduction into an institution's day-to-day business is necessary. When risk is considered in development investment decisions and in the design of projects, the cost of disaster risk reduction is lower.

Indicators of Progress

- c. Core Indicator 3: Community participation and decentralization are ensured through the delegation of authority and resources to local levels

Such action calls for the promotion of community participation in disaster risk reduction through the adoption of policies relevant to the local level, promotion of knowledge networks, strategic management of volunteer resources, attribution of roles and responsibilities, and the delegation and provision of the authority and resources at local levels.

- d. Core Indicator 4: A national multi-sectoral platform for disaster risk reduction is functioning

A multi-sectoral platform for disaster risk reduction can be defined as a nationally owned and led mechanism – adopting the structure of a forum or committee that facilitates the interaction of key development players around the national disaster risk reduction agenda and serves as an advocate for adopting disaster risk reduction measures at all levels.

Section 3: Priority for Action 2

Priority for action 2: Definition and significance

Identify, assess and monitor disaster risks and enhance early warning

The starting point for reducing disaster risk and for promoting a culture of disaster resilience lies in the knowledge of the hazards and the physical, social, economic and environmental vulnerabilities to disasters that most societies face, and of the ways in which hazards and vulnerabilities are changing in the short and long term, followed by action taken on the basis of that knowledge.

In view of the areas outlined in the HFA, Priority for Action 2 has four 'core indicators' on which progress and challenges on implementation are to be monitored and reviewed:

1. National and local risk assessments based on hazard data and vulnerability information are available and include risk assessments for key sectors
2. Systems are in place to monitor, archive and disseminate data on key hazards and vulnerabilities
3. Early warning systems are in place for all major hazards, with outreach to communities
4. National and local risk assessments take account of regional / trans boundary risks, with a view to regional cooperation on risk reduction.

Sub sections

- a. **Core Indicator 1: National and local risk assessments based on hazard data and vulnerability information are available and include risk assessments for key sectors**

National risk assessments allow decision makers and communities to understand the country's exposure to various hazards and its social, economic, environmental and physical vulnerabilities. National risk assessments allow communities to take effective action to reduce disaster and environmental risks.

Level of Progress

The levels of progress will enable a self assessment of the extent to which the policies, programmes and initiatives are sustainable in achieving the indicated risk reduction objectives.

- o 1 – Minor progress with few signs of forward action in plans or policy
- o 2 – Some progress, but without systematic policy and/or institutional commitment
- o 3 – Institutional commitment attained, but achievements are neither comprehensive nor substantial
- o 4 – Substantial achievement attained but with recognized limitations in capacities and resources
- o 5 – Comprehensive achievement with sustained commitment and capacities at all levels

Indicators of Progress

Description (250 words max.)

Describe some of the *key contextual* reasons for the country's ranking/ assessment at the indicated level

Context and Constraints (250 words max.)

Highlight key contextual challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

For each core indicator, mark a level of progress, describe the national context and highlight key contextual challenges, following the template provided above for core indicator 1.

- b. Core Indicator 2: Systems are in place to monitor, archive and disseminate data on key hazards and vulnerabilities.

Data collection and dissemination processes allow decision makers and the public to understand the country's exposure to various hazards and its social, economic, environmental and physical vulnerabilities. Such information, disseminated in an appropriate and timely manner, allows communities to take effective action to reduce risk.

- c. Core Indicator 3: Early warning systems are in place for all major hazards, with outreach to communities

Assessing capacity of the four elements of early warning (risk knowledge, monitoring and warning services, dissemination and communication, and response capabilities) is essential to empowering individuals and communities threatened by hazards to act in sufficient time and in an appropriate manner so as to reduce the possibility of personal injury, loss of life, damage to property and the environment, and loss of livelihoods.

- d. Core Indicator 4: National and local risk assessments take account of regional/trans boundary risks, with a view to regional cooperation on risk reduction.

This action refers to the need to cooperate regionally and internationally to assess and monitor regional and trans boundary risks, exchange information and provide early warnings through appropriate arrangements. This would imply, having standard and accessible information and data on regional disaster risks, impacts and losses.

Section 4: Priority for Action 3

Priority for action 3: Definition and significance

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

Disasters can be substantially reduced if people are well informed and motivated towards a culture of disaster prevention and resilience, which in turn requires the collection, compilation and dissemination of relevant knowledge and information on hazards, vulnerabilities and capacities.

In view of the areas outlined in the HFA, Priority for Action 3 has four ‘core indicators’ on which progress and challenges on implementation are to be monitored and reviewed:

1. Relevant information on disasters is available and accessible at all levels, to all stakeholders (through networks, development of information sharing systems etc)
2. School curricula, education material and relevant trainings include disaster risk reduction and recovery concepts and practices.
3. Research methods and tools for multi-risk assessments and cost benefit analysis are developed and strengthened
4. Countrywide public awareness strategy exists to stimulate a culture of disaster resilience, with outreach to urban and rural communities

Sub sections

- a. Core Indicator 1: Relevant information on disasters is available and accessible at all levels, to all stakeholders (through networks, development of information sharing systems, etc)

Information on disaster risks and protection options, especially to citizens and local authorities in high risk areas, should be easily available and understandable to enable for them to take actions to reduce risk, and build resilience.

Level of Progress

The levels of progress will enable a self assessment of the extent to which the policies, programmes and initiatives are sustainable in achieving the indicated risk reduction objectives.

- o 1 – Minor progress with few signs of forward action in plans or policy
- o 2 – Some progress, but without systematic policy and/or institutional commitment
- o 3 – Institutional commitment attained, but achievements are neither comprehensive nor substantial
- o 4 – Substantial achievement attained but with recognized limitations in capacities and resources
- o 5 – Comprehensive achievement with sustained commitment and capacities at all levels

Description (250 words max.)

Describe some of the key contextual reasons for the country's ranking/ assessment at the indicated level

Context and Constraints (250 words max.)

Highlight key contextual challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

For each core indicator, mark a level of progress, describe the national context and highlight key contextual challenges, following the template provided above for core indicator 1.

- b. **Core Indicator 2: School curricula, education material and relevant trainings include disaster risk reduction and recovery concepts and practices**

Incorporating disaster risk-related issues into existing education curricula contributes to continuous learning and reinforces knowledge for disaster risk reduction. Training activities also provide the opportunity to consider indigenous knowledge and traditional practices for risk reduction and mitigation.

Indicators of Progress

- c. Core Indicator 3: Research methods and tools for multi risk assessments and cost benefit analysis are developed and strengthened

Authorities at national and regional level have a key role to play in strengthening the technical and scientific capacities to develop and apply methodologies, studies and models to assess vulnerabilities and impacts of hazards, including the improvement of regional monitoring capacities and assessments.

- d. Core Indicator 4: Countrywide public awareness strategy exists to stimulate a culture of disaster resilience, with outreach to urban and rural communities

A countrywide public awareness strategy is a national, long-term plan of action with specific goals that organizes how the general population is informed about disaster risk and the ways they can act to reduce their exposure to hazards. Public awareness actions are important tools to help integrate disaster risk reduction into every-day life.

Section 5: Priority for Action 4

Priority for action 4: Definition and significance

Reduce the underlying risk factors

Disaster risks related to changing social, economic, environmental conditions and land use, and the impact of hazards associated with geological events, weather, water, climate variability and climate change, are addressed in sector development planning and programmes as well as in post-disaster situations.

In view of the areas outlined in the HFA, Priority for Action 4 has six 'core indicators' on which progress and challenges on implementation are to be monitored and reviewed:

1. Disaster risk reduction is an integral objective of environment related policies and plans, including for land use natural resource management and adaptation to climate change.
2. Social development policies and plans are being implemented to reduce the vulnerability of populations most at risk
3. Economic and productive sectorial policies and plans have been implemented to reduce the vulnerability of economic activities
4. Planning and management of human settlements incorporate disaster risk reduction elements, including enforcement of building codes
5. Disaster risk reduction measures are integrated into post disaster recovery and rehabilitation processes
6. Procedures are in place to assess the disaster risk impacts of major development projects, especially infrastructure

Sub sections

- a. **Core Indicator 1: Disaster risk reduction is an integral objective of environment related policies and plans, including for land use natural resource management and adaptation to climate change**

Scope of environment risk management policies can have major impacts on disaster risk reduction, and should explicitly incorporate risk reduction goals and strategies. When environmental and natural resource policies specifically incorporate disaster risk reduction elements, they can help reduce underlying risk factors.

Level of Progress

The levels of progress will enable a self assessment of the extent to which the policies, programmes and initiatives are sustainable in achieving the indicated risk reduction objectives.

- o 1 – Minor progress with few signs of forward action in plans or policy
- o 2 – Some progress, but without systematic policy and/or institutional commitment
- o 3 – Institutional commitment attained, but achievements are neither comprehensive nor substantial
- o 4 – Substantial achievement attained but with recognized limitations in capacities and resources
- o 5 – Comprehensive achievement with sustained commitment and capacities at all levels

Indicators of Progress

Description (250 words max.)

Describe some of the *key contextual reasons* for the country's ranking/ assessment at the indicated level

Context and Constraints (250 words max.)

Highlight key contextual challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

For each core indicator, mark a level of progress, describe the national context and highlight key contextual challenges, following the template provided above for core indicator 1.

- b. Core Indicator 2: Social development policies and plans are being implemented to reduce the vulnerability of populations most at risk

This action can be achieved by addressing issues of food security, public health, risk sharing mechanisms, protection of critical public infrastructure etc. When public awareness, education, early warning and environmental policies specifically incorporate disaster risk reduction elements, they can help reduce underlying risk factors and reduce the vulnerability of impoverished groups.

- c. Core Indicator 3: Economic and productive sectorial policies and plans have been implemented to reduce the vulnerability of economic activities

Focusing on the protection of a state's most vulnerable economic activities and productive sectors is an efficient strategy to help reduce the overall impacts of disasters.

- d. Core Indicator 4: Planning and management of human settlements incorporate disaster risk reduction elements, including enforcement of building codes

Including disaster risk reduction elements in land-use plans is an important strategy for reducing the vulnerability of communities to hazards. Land use planning that is carefully designed and rigorously implemented is a useful approach to managing expanding urban settlements and minimizing associated risks.

- e. Core Indicator 5: Disaster risk reduction measures are integrated into post disaster recovery and rehabilitation processes

It is essential to consider disaster risk reduction principles when designing post disaster recovery and rehabilitation processes in order to 'build back better' and not recreate risk. There is an identified need for the national and local implementation of international post disaster recovery and reconstruction norms and standards.

- f. Core Indicator 6: Procedures are in place to assess the disaster risk impacts of major development projects, especially infrastructure

It is crucial to institutionalise procedures to integrate disaster risk reduction measures into national sustainable development strategies, plans and programmes in key areas such as poverty reduction, housing, water, sanitation, energy, health, agriculture, infrastructure and environment to ensure that development does not create further disasters.

Section 6: Priority for Action 5

Priority for action 5: Definition and significance

Strengthen disaster preparedness for effective response at all levels

At times of disaster, impacts and losses can be substantially reduced if authorities, individuals and communities in hazard-prone areas are well prepared and ready to act and are equipped with the knowledge and capacities for effective disaster management.

In view of the areas outlined in the HFA, Priority for Action 5 has four 'core indicators' on which progress and challenges on implementation are to be monitored and reviewed:

1. Strong policy, technical and institutional capacities and mechanisms for disaster risk management, with a disaster risk reduction perspective are in place.
2. Disaster preparedness plans and contingency plans are in place at all administrative levels, and regular training drills and rehearsals are held to test and develop disaster response programmes
3. Financial reserves and contingency mechanisms are in place to support effective response and recovery when required
4. Procedures are in place to exchange relevant information during hazard events and disasters, and to undertake post-event reviews

Sub sections

- a. Core Indicator 1: Strong policy, technical and institutional capacities and mechanisms for disaster risk management, with a disaster risk reduction perspective are in place

An investment of time and resources in systematically evaluating and subsequently improving disaster preparedness capacities and mechanisms provides states with a substantial increase in readiness for managing disaster impacts, and improves response measures.

Level of Progress

The levels of progress will enable a self assessment of the extent to which the policies, programmes and initiatives are sustainable in achieving the indicated risk reduction objectives.

- o 1 – Minor progress with few signs of forward action in plans or policy
- o 2 – Some progress, but without systematic policy and/or institutional commitment
- o 3 – Institutional commitment attained, but achievements are neither comprehensive nor substantial
- o 4 – Substantial achievement attained but with recognized limitations in capacities and resources
- o 5 – Comprehensive achievement with sustained commitment and capacities at all levels

Description (250 words max.)

Describe some of the key contextual reasons for the country's ranking/ assessment at the indicated level

Context and Constraints (250 words max.)

Highlight key contextual challenges encountered by the country/ national authorities and partner agencies; and recommendations on how these can/ will be overcome in the future.

For each core indicator, mark a level of progress, describe the national context and highlight key contextual challenges, following the template provided above for core indicator 1.

- b. **Core Indicator 2: Disaster preparedness plans and contingency plans are in place at all administrative levels, and regular training drills and rehearsals are held to test and develop disaster response programmes**

Disaster preparedness and response planning for recovery and rehabilitation efforts should be informed by the lessons learned from previous disasters as well as knowledge of risk reduction measures in order to avoid missing the underlying causes of risk. Disaster risk reduction actions should be required in the design and implementation of both types of planning.

Indicators of Progress

- c. Core Indicator 3: Financial reserves and contingency mechanisms are in place to support effective response and recovery when required

It is important for governments to commit resources for early recovery programmes including quick assessment of damage, needs and capacities, restoration of critical infrastructure and livelihoods following major disaster events to support the resilience of affected communities, until long term reconstruction of assets take place

- d. Core Indicator 4: Procedures are in place to exchange relevant information during hazard events and disasters, and to undertake post-event reviews

Emergency preparedness and response as well as planning for recovery and rehabilitation efforts should be informed by the lessons learned from previous disasters. Disaster risk reduction actions should be included in the design and implementation of both types of planning

Section 7: Drivers of Progress

Drivers of Progress – Definition and significance

‘Drivers of progress’ refer to factors which act as drivers or catalysts for achieving substantial progress in disaster risk reduction and sustainable recovery from disasters.

These factors will vary across national and local contexts, but typically emphasize the factors/ issues which a country considers important for integration into plans, policies and programmes as a means to achieve disaster risk reduction goals.

The following issues will be considered important drivers or catalysts at the national and local level for this assessment:

1. Multi-hazard integrated approach to disaster risk reduction and development
2. Gender perspectives on risk reduction and recovery adopted and institutionalized
3. Capacities for risk reduction and recovery identified and strengthened
4. Human security and social equity approaches integrated into disaster risk reduction and recovery activities
5. Engagement and partnerships with non-governmental actors; civil society, private sector, amongst others, have been fostered at all levels
6. In sub section 6, please mention up to 2 other contextual drivers of progress as per national and local contexts/ requirements.

Your assessment will consider how much emphasis was placed on each of these factors in achieving the intended outcome of reduced disaster risk.

Sub sections

a. Multi-hazard integrated approach to disaster risk reduction and development

A multi hazard approach can improve effectiveness. A community is usually exposed to risks from a variety of hazards, which can be either natural or human induced in origin, and can stem from hydro-meteorological, geological, technological or environmental forces. The resulting cumulative risk cannot be tackled effectively if actors plan merely for selective hazardous events. A multi-hazard approach involves translating and linking knowledge of the full range of hazards into risk management approaches, strategies, assessments and analysis, leading to greater effectiveness and cost efficiency.

Guiding questions:

Do studies/reports/atlasses on multi hazard analyses exist in the country for the sub region?
If yes, are these being applied to development planning/informing policy?

Level of Reliance

The levels of reliance take into account the rate of progress a country is making towards the implementation of the HFA, while relying on the particular drivers outlined in the section.

- 1 – No/ little reliance: no acknowledgement of the issue in policy or practice; or, there is some acknowledgement but nothing/ little done to address it
- 2 – Partial/ some reliance: full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.
- 3 – Significant and ongoing reliance: significant ongoing efforts to actualize commitments with coherent strategy in place; identified and engaged stakeholders.

Indicators of Progress

Description (250 words max.)

Please identify where more efforts or emphasis might be required in the forthcoming years, and anticipate the types of investment/ strategy required so that each disaster risk reduction and recovery effort places the optimal emphasis on relevant 'drivers'. This is also an opportunity to explain why a particular intended outcome did—or did not—lay emphasis on a driver.

For each driver of progress, mark a level of reliance and describe the key challenges, and future orientation, following the template provided for the first driver of progress.

b. Gender perspectives on risk reduction and recovery adopted and institutionalized

Gender is a core factor to be considered in the implementation of disaster risk reduction measures. Gender is a central organizing principle in all societies, and therefore women and men are differently at risk from disasters. Gender shapes the capacities and resources of individuals to build resilience, adapt to hazards and to respond to disasters. It is thus necessary to identify and use gender differentiated information, to ensure that risk reduction strategies are correctly targeted at the most vulnerable groups and are effectively implemented through the roles of both women and men.

c. Capacities for risk reduction and recovery identified and strengthened

Capacity development is a central strategy for reducing disaster risk. Capacity development is needed to build and maintain the ability of people, organizations and societies to manage their risks successfully. This requires not only training and specialized technical assistance, but also the strengthening of the capacities of communities and individuals to recognize and reduce risks in their localities. It includes sustainable technology transfer, information exchange, network development, management skills, professional linkages and other resources. Capacity development needs to be sustained through institutions that support capacity development and capacity maintenance as dedicated, ongoing objectives.

d. Human security and social equity approaches integrated into disaster risk reduction and recovery activities

One of the key challenges in disaster risk management is to ensure that the most vulnerable are protected from existing and emerging environmental risks, and that those most affected are reached through disaster response and recovery programmes. Often, the most vulnerable belong to socio-economic and geographic

'minority' groups. Focused attention to meeting the special needs of the socio-economically vulnerable and/ or geographically secluded groups needs to be ensured through risk reduction and recovery plans and programmes.

- e. Engagement and partnerships with non-governmental actors; civil society, private sector, amongst others, have been fostered at all levels

Effective disaster risk reduction requires effective community participation. Participatory approaches can more effectively capitalize on existing coping mechanisms and are effective at strengthening community knowledge and capacities. Equally, public-private partnerships are an important tool for disaster risk reduction. Such voluntary associations may involve public organizations such as government agencies, professional and/ or academic institutions and NGOs, together with business organizations such as companies, industry associations and private foundations. Public-private partnerships can offer opportunities to combine resources and expertise to act jointly to reduce risks and potential losses. They can in turn improve the resilience of communities.

Contextual Drivers of Progress

Possible instances of contextual drivers could include: Resources and Institutional Capacities, political champions for disaster risk reduction, structural safety of schools, hospitals and critical public infrastructure, sound recovery strategies, or, institutionalization of mechanisms to mainstream disaster risk reduction in national development policy and programmes, etc.

Please specify, if there are other or more context specific drivers that you have relied on to achieve the targets at na-

Indicators of Progress

tional or sub regional level.

Section 8: Future Outlook

Future Outlook: Definition and Significance

It is important to reiterate the importance of implementing disaster risk reduction actions for achieving sustainable human development goals. The objective of this section is two fold. One, to outline overall challenges encountered in the implementation of national and local disaster risk reduction actions. Two, re-assess current priorities to provide a statement on the country's future outlook with regard to national disaster risk reduction goals.

'Overall Challenges' section: Express overall challenges in achieving the current priorities listed against each of the strategic goals, in the first section.

These can be summed up from the challenges encountered in implementing the specific HFA priorities for action. The challenges will typically refer to overarching systemic needs and gaps such as capacities, institutional structures and priorities, and political will.

'Future Outlook' Statements: While the strategic goal statement emphasizes the 'current priorities' of a country, the future outlook statement should reflect a re-assessment of the current priorities in the context of the challenges outlined throughout the previous sections.

This re-assessment is intended to encourage thinking on the future positioning and direction of the national strategy on disaster risk reduction. Focus on the criticality of disaster risk management programmes to emerging local, national and regional development priorities. This section may also contain recommendations for follow up actions to be discussed among partners at the national, regional and international level.

Guidance for this section

- A. The objective of this section is to outline overall challenges encountered in the implementation of national and local disaster risk reduction actions; and re-assess current priorities to provide a statement on the country's future outlook with regard to national disaster risk reduction goals.
- B. Express overall challenges in achieving the current priorities listed against each of the strategic goals, in the first section.
- C. Focus on the criticality of disaster risk reduction to emerging local, national and regional development priorities and provide a 'future outlook' statement which summarizes the future orientation to be adopted by national disaster reduction goals.
- D. This section has three sub sections to be filled in, corresponding to each of the 3 strategic goals.

Sub sections

Future Outlook Area 1

Integration of DRR into sustainable development policies and planning

Overall Challenges (250 words)

Future Outlook Statement (50 words max.)

Future Outlook Area 2

Development and strengthening of institutions, mechanisms and capacities to build resilience to hazards

Overall Challenges (250 words)

Future Outlook Statement (50 words max.)

Future Outlook Area 3

Systematic incorporation of risk reduction approaches into the implementation of emergency preparedness, response and recovery programmes

Overall Challenges (250 words)

Future Outlook Statement (50 words max.)



International Strategy for Disaster Reduction

H F A

Annex 11

Worksheet for data collection on disaster losses

Indicators of Progress

Guidance on Measuring the Reduction
of Disaster Risks and the Implementation
of the Hyogo Framework for Action



United Nations

Worksheet 1-A National Reporting on Disaster Losses																							
Loss Category	Deaths				Affected Population				Declared Economic Losses														
	Number		per million population		Number		per million population		US \$ in millions		% of GDP												
	Hazard A	Hazard B (etc.)	Hazard A	Hazard B (etc.)	Hazard A	Hazard B (etc.)	Hazard A	Hazard B (etc.)	Hazard A	Hazard B (etc.)	Hazard A	Hazard B (etc.)											

Worksheet 1-B National Reporting on Disaster Declarations Resulting in Requests for International Assistance and Natural Hazard Event Occurrence										
Information Sources CRED DISINVENTAR GLIDE IFRC National Bi-lateral Development Assistance Agency Annual Disaster Assistance Reports (CIDA, USAID) OCHA UNDP										
Year	Hazard A		Hazard B		Hazard C		Hazard D		Hazard E (etc.)	
	Declared Disasters	Number of Hazard Events	Declared Disasters	Number of Hazard Events	Declared Disasters	Number of Hazard Events	Declared Disasters	Number of Hazard Events	Declared Disasters	Number of Hazard Events
2006										
2005										
2004										
(yearly back to 1964)										



United Nations
International Strategy for Disaster Reduction

Secretariat Geneva

Tel. : +41 22 917 8908/8907

Fax : +41 22 917 8964

isdr@un.org

www.unisdr.org

International Environment House II
7-9 Chemin de Balaxert
CH 1219 Châtelaine
Geneva, Switzerland

Postal Address:

Palais des Nations, CH-1211
Geneva, Switzerland

Secretariat Africa, Nairobi

isdr-africa@unep.org

www.unisdr.org/africa

Secretariat Asia and the Pacific, Bangkok

isdr-bkk@un.org

www.unisdr.org/asiapacific

Secretariat the Americas, Panama

eird@eird.org

www.eird.org

Secretariat Europe, Geneva

albrito@un.org

www.unisdr.org/europe

Secretariat, West Asia and North Africa, Cairo

info@unisdr-wana.org

www.unisdr.org/wana