

Compilation of National Progress Reports on the implementation of the Hyogo Framework for Action:

HFA Priority 2, core indicator 2.1:

National and local risk assessments based on hazard data and vulnerability information are available and include risk assessments for key sectors.

Know the Risks and Take Action

Reporting period: 2007-2009

This document has been compiled from the national progress reports provided by 76 countries through the HFA Monitor.

Note that these extracts are provided for convenience only.
National HFA progress reports should be considered in their entirety and can be found at:

<http://www.preventionweb.net/english/hyogo/framework/progress/>

Africa

Algeria (in French)

Level of Progress achieved:

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

En effet, à la suite des nombreuses catastrophes qu'a connues le pays ces dernières décennies (séismes, inondations, feux de forêt, invasions acridiennes, tempêtes et vents violents, ...) , beaucoup d'études d'aléa, de vulnérabilité et de risque ont été réalisées par les secteurs et les organismes concernés. Ces études servent d'ores et déjà de bases fiables pour des actions de réduction de risques par différents secteurs.

Par ailleurs, beaucoup de travaux de recherche (Magister et Doctorat) sont réalisés au niveau de l'université dans le domaine de l'évaluation des aléas et des vulnérabilités.

Context & Constraints:

Le défi principal réside dans l'insuffisance d'appropriation par la plupart des communautés (Wilayas, mais surtout communes) des outils de réduction des risques de catastrophes. En effet, les études et outils déjà existants demeurent à l'usage de certaines administrations centrales et organismes spécialisés même si, pour certains cas, il y a eu des applications au niveau local.

De plus, en ce qui concerne le volet « évaluation de la vulnérabilité et des risques », des efforts significatifs devront être poursuivis et développés en confiant aux organismes nationaux scientifiques et techniques, des missions d'animation et d'encadrement d'activités de réduction des risques au niveau local

D'ailleurs, la démultiplication des actions induites par la mise en œuvre des dispositions de la loi 04-20 permettra de surmonter progressivement ce handicap

Angola (in English)

Level of Progress achieved:

2 - Some progress, but without systematic policy and/ or institutional commitment

Description:

Existe um plano nacional de preparação e resposta 2007/2008 e planos de emergências sectoriais. Contudo há falta de base de dados como indicadores de avaliação de riscos sectoriais.

Context & Constraints:

Continuamos a trabalhar no mapeamento de riscos a nível nacional.

Burkina Faso (in French)

Level of Progress achieved:

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

Pour un certain nombre de secteurs, les risques sont connus: il s'agit des secteurs de la Santé, de l'

Agriculture, des Ressources animales, de l'Environnement , des Ressources en eau (arsenic et autres), de l'Education et des Infrastructures.

Context & Constraints:

- Insuffisance des ressources (humaines, financières et matérielles) nationales allouées aux programmes en cours. Les actions sont financées financés pour l'essentiel sur des ressources exétrieures .

Pour les autres risques comme les mouvements de populations ou les inondations, il y a des difficultés objectives d'appréhension du phénomène.

Burundi (in French)

Level of Progress achieved:

2 - Some progress, but without systematic policy and/ or institutional commitment

Description:

Des informations éparses existent mais ne sont pas centralisées et ne sont pas pris en compte dans la coordination des interventions

Context & Constraints:

Manque de politique claire de gestion de l'information liée aux aléas naturels et à la vulnérabilité

Cote d'Ivoire (in French)

Level of Progress achieved:

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

L'évaluation des risques aux niveaux national et local basée sur les données concernant les aléas naturels et l'information sur la vulnérabilité existent dans certains secteurs. Il convient de noter que la Côte d'Ivoire est épargnée par les grands cataclysmes naturels (zone de faible sismicité et de cyclones) mais connaît des risques naturels tels les inondations, tempêtes, glissements de versants et incendies de brousse qui provoquent pertes humaines et matérielles. On peut entre autre relever :

-Les glissements de terrain qui sont circonscrits à la zone montagneuse de la région Ouest et à quelques versants abrupts du bassin sédimentaire, en particulier près d'Abidjan où les risques de glissements localisés existent sur le flanc Nord-Est de la presqu'île de Bingerville et sur la rive Est de la baie du Banco -Attécoubé- (MET, 1994).

-Les tempêtes, combinées à l'impact de la houle (accentué par l'élévation du niveau de la mer) et à l'exploitation des matériaux marins (sable et graviers), participent à l'érosion côtière. Cette dernière atteindrait 2 mètres par an à Grand-Lahou (Ouest du littoral) et 1,5 mètres par an à l'Est du canal de Vridi (SORO, 2006).

-Récemment des signes de tremblements de terre ont été signalés à Boundiali (2004) et dans la région de Tingréla et de Dabakala (2006).

-A ceci, s'ajoutent des risques comme les épidémies associées à des pertes humaine, ainsi que les incendies de brousses, les déversements d'hydrocarbures et de déchets toxiques dont les risques sont réels et dont les conséquences sont d'ordre environnemental.

Mais ces différentes informations sur la vulnérabilité ne sont pas très accessibles et n'incluent pas toujours les facteurs de risques sous-jacents.

Context & Constraints:

Le défi à relever dans ce cadre est la synergie d'actions qui devrait permettre de prendre en compte les

interactions entre les secteurs et de mieux appréhender la vulnérabilité des populations et de l'environnement. Les programmes et plans d'actions émanant de la plateforme RRC à venir devraient pouvoir y remédier.

Egypt (in English)

Level of Progress achieved:

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

Risk assessment was developed for several disasters, (earthquakes and flash floods for example). National and local risk assessments, based on hazard data and vulnerability information, are partially conducted. However, ongoing efforts started to build the first comprehensive database for areas at risk (hazards maps). Standardized risk assessment methodologies for some disasters (earthquakes, floods, and fires) are being adapted and endorsed by the government and applied by local governments as an integral part of the development planning process.

CMDRS/ IDSC developed a prototype integrated information system that contains an integrated database.

The database includes the following:

> General procedures manual for crisis and disaster management and their risk reduction on the national level.

> A number of models of specific contingency and preparedness plans/scenarios for crisis and disaster management and risk reduction, for instance:

- o Emergency plan to address Nile-related crisis and its risk reduction.
- o Emergency plan to address major fires and their risk reduction.
- o The national plan to manage disasters of flash floods in Egypt and their risk reduction.
- o The national plan to manage disasters of earthquakes in Egypt and their risk reduction.
- o National contingency plan for pandemic influenza.
- o Simulation scenarios in the field of crisis and disaster management and risk reduction.

In addition, Ministry of State for Environment Affairs has prepared the following plans:

- A National Oil Spill Contingency Plan.
- A National Contingency Plan for Environmental Disasters.

Ministry of State for Environment Affairs is also now finalizing the National Integrated Coastal Zones Management Plan.

The government established an information database for each governorate, including socio-economic information, administrative information, resources and physical infrastructure. The database includes information on vulnerable places exposed to hazards and risk. These databases are updated regularly. Presently, the preparation of both local and national risk maps (Geographic Information System "GIS") is progressing. Database is considered for development, focusing upon man-made hazards.

The Government has also established the National Center for Planning State Land Use. Amongst its mandate is to identify hazard prone areas and develop codes of practice and conditions for development. The Developing of Slums and Squatter settlements Fund was established in 2008 in order to survey and develop slums and squatter areas, resettlement plans for these areas, and to provide them with required infrastructure such as: water, sanitation and electricity supplies.

This Fund is responsible for designing required public polices for developing unsafe/ vulnerable areas, planning for resettlement in these areas where no standards for safety and protection are applied, especially those related to fires and building collapses.

Context & Constraints:

Sectoral database and GIS with adequate information exists. The ongoing efforts to build the first comprehensive database on areas at risk (hazards maps) and to build the first vulnerability database relevant to the climate change are to be maintained and developed in a short period. The quality of information and data is to be revised, standardized and updated. Similar efforts are to be provided for the

local levels, this will require the establishment of efficient local system with adequate resources. Meantime building the capacity and technical infrastructure is to be a continuous practice covering all levels and sectors.

Ghana (in English)

Level of Progress achieved:

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

Adequate identification of hazards, constant monitoring and assessment by the Technical Advisory Committees, as well as, linkages with stakeholders allow early warning. The identified hazards include: Geological, Hydrometeorological, Fires, Pests & Insects Infestations, Diseases & Epidemics, Nuclear & Radiological, Man-Made (Conflicts, vehicular/boat accidents). In 2007 Hazards and Vulnerability Maps were prepared for four hazard types namely: Hydrometeorological, Fires, Pests and Insects Infestation and Geological hazards.

Context & Constraints:

While adequate expertise and equipment for monitoring and early warning exist at the national level, the same cannot be said for the regional, district and community levels.

Additionally, capacity to process, analyse and utilise data collected are not very strong at the regional, district and community level.

Cultural practices and attitudes serve as additional constraints.

Kenya (in English)

Level of Progress achieved:

1 - Minor progress with few signs of forward action in plans or policy

Description:

Vulnerability information has been mapped.

Context & Constraints:

It is an exercise that needs experts and funds.

Madagascar (in French)

Level of Progress achieved:

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

L'axe stratégique 3 de la SNGRC stipule la nécessité de la mise en œuvre d'un système d'information exhaustif en GRC au sein du BNGRC. Ce dernier a bénéficié d'appuis de différents partenaires depuis 2000, ce qui a permis de mettre en place le Système d'Information sur les Risques et des Catastrophes (SIRCat). Des analyses et des cartographies sur les aléas naturels (climatiques, hydrologiques et invasions) sont disponibles. Les analyses sont le fruit de collaboration de tous les acteurs clés dans le secteur (météo, ministères clé, intervenants, communautés, ...) réunis en task force par aléa. Des analyses de vulnérabilité existent aussi mais ont besoin d'être mises à jour.

Context & Constraints:

Il y a une difficulté de mise à jour des analyses et des informations sur la vulnérabilité. Parmi tant d'autres, voici quelques éléments de blocage dans la mise à jour de ces analyses et ces cartographies :

- Insuffisance des ressources.
- Insuffisance de données désagrégées au niveau administratif le plus proche de la population : Commune, voire Fokontany (regroupement de hameau et de village)

La réalisation des enquêtes, pour permettre de sortir des analyses, nécessite un gros budget. Elle dépend aussi de la disponibilité et l'accessibilité des données de base. Enfin, lors des enquêtes nationales effectuées par les différentes entités sectorielles, la dimension GRC n'est pas prise en compte.

Malawi (in English)**Level of Progress achieved:**

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

National and local risk assessments have been conducted by different organisations but not in a systematic and coordinated manner and as such no comprehensive hazard profile has been developed for the country. Plans, however, are underway to conduct a national hazard and risk mapping exercise starting with disaster prone areas. The Department of Surveys has developed a project proposal for the hazard and risk mapping exercise.

Context & Constraints:

1. Lack of financial resources for undertaking the hazard and risk assessment exercise. Expertise is available in the country in the Departments of Surveys, Physical Planning, Meteorological Services and Ministry of Irrigation and Water Development to undertake the exercise. What has been lacking is financial resources. A donor is yet to be identified for the project proposal that has been developed.

Mauritius (in English)**Level of Progress achieved:**

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

Impacts, distribution and frequencies of tropical cyclones are well documented and fairly well understood.

Vulnerable areas prone to flash flood have also been identified, though the physical characteristics of land are changing because of change in land use. Areas prone to landslide have also been identified.

Lately, a coastal inundation map has been produced by the Mauritius Oceanographic Institute. The map identifies and states the degree of vulnerability of various coastal areas in the event of a potential tsunami.

The Climate Change Plan of Action lists a series of adaptation and mitigation measures that need to be considered with regard to climate change.

Context & Constraints:

A complete assessment still need to be carried out to have a complete picture of the impacts regarding some hazards like tsunami, or even flood and landslide. Cross-sectoral linkages, namely economic, social and environmental have still to be quantitatively assessed

Mozambique (in English)

Level of Progress achieved:

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

Several studies on risk assessment and vulnerability information were done by INGC in collaboration with FEWSNet and UEM on disaster preparedness and response in the Limpopo Basin where SAHIMS ATLAS was produced. The SAHIMS ATLAS offers easy access to maps, charts and images pinpoints the different types of disaster than can affect the Limpopo river basin. The most frequent disasters are droughts followed by floods and at last the cyclones. The flood Risk Maps developed by Water Administration unit, ARA-South, in the Limpopo and Incomati Basin where aimed in minimizing loss of life and property by warning people of the likelihood and size of a flood to allow timely evacuation, and delivery of property or stock to higher ground. Those flood risk maps were divided into three categories namely:

Flood Level 1 (Minor Flooding): Causing inconveniences such as closing of minor roads and the submergence of low level bridges prompting removal of pumps located in places adjacent to the river.

Flood Level 2 (Moderate Flooding): This causes the inundation of low lying areas requiring the removal of stock and the evacuation of some houses. Main traffic bridges may be closed by floodwaters

Flood Level 3 (Major Flooding): This causes inundation of large areas, isolating towns and cities. Major disruptions occur to road and rail links. Evacuation of many houses and business premises may be required. In rural areas widespread flooding of farmland is likely.

In other hand, comprehensive national food security vulnerability analysis was done by SETSAN in 2005 with WFP support and is available in SETSAN website.

Context & Constraints:

As Mozambique is regularly affected by floods, complete and comprehensive risk analysis has to be done in all 13 river basins out of only two. In other hand, there's a need for a better coverage of risk maps and to ensure that they are properly used as an essential tool for the planning process. In the most cases, when the risk assessments activities are in progress and part of the relevant stockholders are not involved. They are in most cases involved in the implementing stage. As a result, some communities that are focus of the assessments do not accept the mitigation measures recommended by those studies. Lack of community training in using and interpreting of those tools is also deep as the creation and training of Local Committees for Risk management does not cover the whole country yet and simulation exercises are still reduced and limited to small areas.

There's also a need to accompany the country risk assessment by establishment of national information system where historical relevant events data is managed and disseminated.

Senegal (in French)**Level of Progress achieved:**

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

Le Sénégal vient d'élaborer son plan de contingence national avec la participation des Services étatiques en charge de la RRC, de la société civile, du réseau des parlementaires, des Agences humanitaires du Système des Nations Unies (PAM, OCHA, etc.), de la Fédération Internationale de la Croix Rouge et du Croissant Rouge (FICR), de la Croix Rouge Sénégalaise, de OXFAM, etc. Cet exercice a permis d'identifier les risques de catastrophe qui menacent le pays et, en fonction des enjeux, de retenir trois scénarii qui feront l'objet du plan de contingence, à savoir, (1) les inondations, (2) l'invasion acridienne et (3) les épidémies (choléra, méningites, etc.).

Context & Constraints:

Le plan de contingence reste à être finalisé car le délai imparti ne permettait pas de conduire l'exercice avec un objectif didactique et de traiter les deux derniers scénarii retenus. Pour cette raison, le plan de contingence n'est pas encore opérationnel et nécessite quelques travaux d'atelier pour le finaliser.

Sierra Leone (in English)

Level of Progress achieved:

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

LEVEL FOUR. A lot has been achieved in this direction but there are some limitations with regards to capacities and resources of the institutions given this responsibility. A detailed study of the national and local risk assessments are readily available and include risk assessments for key sectors within the country. The hazard data and vulnerability information covers that of all the communities nationwide. In addition to the National Hazard Profile that ensures decision makers and communities to fully understand their exposure to various hazards and the social, economic, environmental and physical vulnerabilities that they may face; a nationwide vulnerability and capacity assessment on the hazards and risks as per community also make room to sensitise communities on the vulnerabilities that they may face and the capacities at their disposal to manage them. The National Hazard Profile also allow communities to take effective action to reduce disaster and environmental risks. The provincial and District Disaster Management Committees are there to ensure that readily available information on impending disaster is timely communicate to the community for necessary actions to save lives and properties. Even though the National Hazard Profile is available and vulnerability assessments are been done, yet there is the strong need to update the information and incorporate new/emerging hazards at least quarterly unlike the bi-annual being done in the country. Undertaking such ventures is expensive and there is not money set-aside for such. As such there is lack of resources. Communities generally cannot afford modern and technological upgraded 'capacities' but can make do with the localised capacities that cannot suffice in all instances of tackling the many hazards that might befall them. Next is the need to conduct regular training to improve on capacity of national authorities and partner agencies to refresh their knowledge

Context & Constraints:

Even though the National Hazard Profile is available and vulnerability assessments are been done, yet there is the strong need to update the information and incorporate new/emerging hazards at least quarterly unlike the bi-annual been done in the country. Undertaking such ventures is expensive and there is not money set-aside for such. As such there is lack of resources. Communities generally cannot afford modern and technological upgraded 'capacities' but can make do with the localised capacities that cannot suffice in all instances of tackling the many hazards that might befall them. Next is the need to conduct regular training to improve on capacity of national authorities and partner agencies to refresh their knowledge.

Swaziland (in English)

Level of Progress achieved:

1 - Minor progress with few signs of forward action in plans or policy

Description:

No risk assessment is being undertaken. The only assessment that is being done is the annual vulnerability assessment which focuses mainly on issues of the availability of food and water at the moment

Context & Constraints:

There has been some capacity constraint as the National Disaster management Agency has been operating with a skeleton structure and was mainly focusing on relief efforts.

Tanzania, United Rep of (in English)

Level of Progress achieved:

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

The PMO - DMD has finalized and produced a report on disaster risks and capacity needs assessment for Tanzania Mainland June, 2008. Report based on contributions from Regional and Local Government Authorities as well as agencies addressing disaster risk management.

The report identified available capacity and deficiencies of Disaster Management department and its key stakeholders in disaster risk management; provides a contemporary summary of the physical nature, impacts, distribution of hazards by agro ecological regions and frequency of occurrence of ten key hazards affecting Tanzania. These include technological, meteorological, geological and biological hazards and finally proposed capacity building programme.

The national Disaster Risks and Capacity Needs Assessment report assist with identifying and assessing hazards and risks to be addressed through national policies and plans, and the legislative frameworks. Local government Authorities undertake hazard and risk assessment as part of their risk management processes in environmental planning and while developing District Development Plans as well as District Agriculture Development Plans

The Ministry of Lands, Housing and Human Settlements Development - National Land Use Planning Commission (NLUPC) in July, 2008 has finalized and established a National Land use frame work plan of 2008 - 2028. The frame work provides for significant investment in research and development into helping land based sectors adapt to climate change. This includes research into modeling and methodologies to enhance the land based sectors evidential basis for disaster risk management with regard to climate change.

PMO - DMD in collaboration with Ministry of Agriculture - National Food Security Team have been carrying out annually Rapid Vulnerability Assessment (RVA) for food unsecured district in the country. After analysis the report is available for government and donors interventions.

Context & Constraints:

Challenges include concern in improving coordination and understanding of inter dependencies across sectors. Others include improving ability to assess the full range of consequences and vulnerabilities, especially secondary impacts, comparative economic analysis and assessing non monetary costs.

Togo (in French)

Level of Progress achieved:

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

aucune action en matière d'évaluation des risques au niveau national et même locale. cependant avec l'appui du Programme des Nations Unies pour le Développement, des études seront engagées pour le diagnostic des risques au niveau national et local assorties d'une cartographie nationale.

Context & Constraints:

les moyens financier pour l'établissement des cartes régionales plus réalistes

Zambia (in English)

Level of Progress achieved:

1 - Minor progress with few signs of forward action in plans or policy

Description:

The Comprehensive Vulnerability Assessment and Analysis has not been done. However, the process of conducting a vulnerability profiling to create vulnerability baseline information is underway. The concept paper and instruments for the assessments have already been developed and sector submissions have been received. Sector submissions contain information such as what the sectors have identified as hazards pertaining to their operation, sources of information on the identified hazards, what sector based gaps in information exist and how those gaps can be filled. Some sectors such as health, environment and agriculture have already developed their vulnerability indicators. The CVAA field based activities are scheduled to take place from August to September, 2009.

Context & Constraints:

The CVAA will form the initial impetus for pushing the DRR agenda forward in the country as the outputs of the survey will be the main inputs in the mainstreaming of DRR in development programming process. However, the process is hampered by inadequate funding to carry out the Comprehensive Vulnerability assessment and Analysis (The budget estimate is about US\$ 2 million).

Americas

Anguilla (in English)

Level of Progress achieved:

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

Pilot of HRV assessment approach undertaken in Summer 2008

Context & Constraints:

Comprehensive hazard, risk and vulnerability assessment to be undertaken summer 2009.

Results found that base information is old and was developed as a part of larger regional initiatives and not applicable to a local study.

Data also incorrect on a custom spheriod in the GIS and not open to easy editing or extension of the features.

Attributes almost non existent.

Flood boondaries are "estimates" based on visual only.

Argentina (in Spanish)

Level of Progress achieved:

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

Argentina tiene constituido un Grupo de Proveedores de Información Primaria (que integran desde la Comisión de Actividades Espaciales, el Instituto Nacional del Agua, el Instituto de Prevención Sísmica, el Instituto de Estadísticas y Censos, etc.) un Grupo de Monitoreo de Alertas (Dirección de Protección Civil, Cuerpo de Bomberos, Fuerzas Armadas, Dirección Nacional de Emergencias Sanitarias, etc.), activos y de reunión y seguimiento continuo.

Estos grupos luego difunden información a los ámbitos provinciales y locales según la necesidad, y permiten conocer la evolución de los sucesos que pueden convertirse en riesgo de la misma manera que están permitiendo la identificación de vulnerabilidades con la anticipación suficiente como para que luego los responsables puedan actuar apropiadamente.

Las limitaciones presupuestarias y, en oportunidades, informes de un nivel técnico excesivamente complejo para el entendimiento de comunidades locales con menor nivel científico-tecnológico, han derivado en que los informes no resulten aptos para la resolución de la problemática

Context & Constraints:

El debido archivo y acceso a dicha información, aún incompleto, es un reto que ha sido identificado y que tratará de superarse.

Y, una vez detectada la vulnerabilidad, la información acorde al nivel y recursos de la autoridad de aplicación será necesaria. A ello se tenderá, gracias al conocimiento de esta situación que se obtuvo a partir de los intercambios en la Plataforma Nacional.

Bolivia (in Spanish)

Level of Progress achieved:

2 - Some progress, but without systematic policy and/ or institutional commitment

Description:

Existen labores que de forma paralela vienen realizando las instituciones involucradas en la temática, tanto instituciones estatales como no gubernamentales.

El nivel de evaluación alcanzado simplemente se reduce a un mapeo de la incidencia de un fenómeno y no existe una cuantificación de población y áreas afectadas.

Context & Constraints:

Las Instituciones involucradas posiblemente están realizando duplicidad de información.

Falta de socialización, conocimiento y actualización por parte de las instituciones a la normativa existente sobre el tema de desastres ejemplo: Ley 2140 y DS 26739.

British Virgin Islands (in English)

Level of Progress achieved:

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

Hazard Identification and Risk Assessment (HIRA) - The Territorial Hazard Identification and Risk Assessment process involves the identification of hazards and the assessment of risks to persons, public and private property, and structures. The data collected at the community/island level provides much of the data the Territory will use to produce its assessment of risk. The information collected during the HIRA will also be used for more detailed damage and loss estimation projections.

Disaster and Environmental Risk Management Policies are being integrated into development plans at the national level through the incorporation of the hazard mitigation requirements within the National Planning Act No. 15 2004 Regulations. The regulations are currently being drafted to support the requirements within the Planning Act. The Planning Act requires certain developments to undergo Environmental Impact Assessment (EIA). The methods to undertake a Hazard Vulnerability and Risk Assessment have been incorporated within the requirements for the EIA. In addition, small residential developments and subdivisions are also required to undertake a hazard vulnerability assessment for properties that are located within the designated hazardous areas.

Context & Constraints:

Local resources to support the required assessments and provide technical expertise are lacking among the private and public sector.

Cayman Islands (in English)

Level of Progress achieved:

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

Government has commissioned a hazard vulnerability assessment and the results are expected to be presented shortly.

A national assessment of living conditions has been completed and this is helping to inform decision makers. It is also providing valuable data on vulnerability factors related to economic issues among the lower income population.

Storm surge modeling is complete and includes a comprehensive survey of the coastline, including the seabed and inshore area to a depth of 20 feet.

A Geographical Information System based property valuation system has been produced, which when used in conjunction with the storm surge modeling data will provide loss projection modeling and statistics.

Sea level rise modeling maps have been produced by the Lands and Survey Department.

Context & Constraints:

Hazard Management Cayman Islands has only been established for a year and a half and are in the process of implementing an all hazards approach. As a result the work is still in progress to achieve these results.

Colombia (in Spanish)

Level of Progress achieved:

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

Los organismos técnicos pertenecientes al Sistema realizan las evaluaciones de los riesgos no solamente nacionales sino locales a través de los Sistemas de Alerta Temprana y Mapas de riesgo etc. Lo anterior se da a conocer a las comunidades mediante las comisiones que integran los Comités Locales de Prevención y Atención de Desastres: la comisión educativa con las instituciones educativas han incorporado el tema en los Planes escolares, de igual manera los organismos de socorro como la Cruz Roja Colombiana promueven proyectos pilotos de Prevención de desastres que involucran los SAT y la evaluación de los riesgos locales Casos específicos que merecen mención, el Proyecto Glacio volcánico Cañón del Combeima en la ciudad de Ibagué, Departamento del Tolima, Volcán Nevado del Huila en el Departamento del Huila, Volcán Galeras en el Departamento de Huila, cerro volcán Machín en el los Departamentos de Tolima, Quindío y Cundinamarca y sistemas Comunitarios como el proyecto cambio climático y desastres en la Guajira. Todos están disponibles no solamente en las bases de datos y/o paginas web de cada entidad ejecutora, pero también en el Sistema de información de Prevención y atención de desastres www.sigpad.gov.co

Context & Constraints:

Generalmente se formulan las valoraciones de amenazas, a través de mapas por entidades técnicas del Sistema Nacional de Prevención y Atención de Desastres (INGEOMINAS , IDEAM, IGAC) quienes poseen el conocimiento. Sin embargo no es fácil llegar obtener los mapas de riesgo razón por la cual no permiten la evaluación óptima del riesgo. Esfuerzos que demandan costos, donde los presupuestos de las diferentes entidades no son suficientes para llegar a resultados esperados. Lo anterior hace que se tenga un conocimiento parcial de los problemas de riesgo. Se responde en términos generales bien por lo nacional, mas no por lo local. Problemas en escalas detalladas de cartografía y monitoreo resultan muy onerosos. Se comparte información, pero con ciertos inconvenientes; al momento se evalúan mecanismos para el acceso a la información; p.e universidades y Corporaciones Regionales disponen de cierta información que no es muy conocida. No hay especialistas suficientes en el área de amenazas, vulnerabilidad y riesgo. No existen sobre el particular metodologías unificadas y estandarizadas. Insuficiente personal y recursos dedicados a la generación de mapas a escala local.

Costa Rica (in Spanish)

Level of Progress achieved:

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

“Las evaluaciones de los riesgos nacionales y locales, basadas en información sobre las amenazas y las vulnerabilidades, están disponibles e incluyen valoraciones del riesgo para cada sector clave.”

Nivel alcanzado: 4

Diversas instancias de investigación del país, especialmente institutos de las universidades públicas, realizan investigación y junto con la CNE realizan valoraciones de riesgo a desastres. Existen una serie de convenios y procedimientos de trabajo, entre las que se incluye la articulación de los comités asesores técnicos, que permiten la transferencia y divulgación de la información. La CNE y algunos de los institutos de investigación cuentan con sistema de información (SIG) que permiten concentrar y sistematizar la información sobre amenazas y la elaboración de mapas de amenaza y de riesgo a desastres. Además, los eventos de emergencias y desastres se documentan y se mantiene un registro histórico de los mismos. El país cuenta con un atlas nacional de amenaza llevado al nivel municipal, así como un amplio historial de datos sobre desastres. Se realizan esfuerzos de divulgación especialmente hacia el nivel municipal. Los desarrolladores urbanos están empezando a usar la información, pues son datos que forman parte de los requisitos para la autorización por parte de las autoridades ambientales y los municipios para el desarrollo de obras.

Context & Constraints:

Hace falta sostenibilidad de los compromisos de transferencia de información, especialmente para asegurar la actualización de la información. En necesario generar capacidad en los gobiernos locales (municipalidades) para el uso efectivo de la información. Falta articular variables sociales al análisis del riesgo. En la actualidad se avanza en la delimitación de indicadores de riesgo a desastres, destinados a la valoración de los proyectos de inversión pública y a regular la inversión pública. Además, se está iniciando la elaboración de instrumentos de estimación de pérdidas y determinación de costos de inversión por desastres.

Dominican Republic (in Spanish)**Level of Progress achieved:**

1 - Minor progress with few signs of forward action in plans or policy

Description:

Hay informaciones disponibles de las evaluaciones del sistema nacional de prevención, mitigación y respuesta. También mapas de amenazas y vulnerabilidades de algunas áreas del país. Falta hacer estudios sistemáticos a nivel nacional y compartir toda la información disponible.

Los usuarios no tienen de costumbres usar estas informaciones. En la mayoría de las veces pasan por desapercibida

Context & Constraints:

Es necesario promover el fortalecimiento de un Sistema Integrado de Información a nivel nacional (tal y como lo establece la Ley 147-02 en su artículo 19), así como lograr un apoyo político para el mismo.

Ecuador (in Spanish)**Level of Progress achieved:**

2 - Some progress, but without systematic policy and/ or institutional commitment

Description:

•AVANCE

La política 5. Todas las instituciones, organismos colegiados, grupos técnico-científicos, centros de

educación superior, etc., deberán iniciar acciones sostenidas de investigación y generación de información de la temática de gestión de riesgos con su línea de trabajo: 5.3 Desarrollar e implementar sistemas de alerta temprana en las zonas de más alto riesgo en el país.

Context & Constraints:

Recomendación:

- Difusión de los avances en Sistema de Alerta Temprana.
 - Involucramiento de técnicos expertos en estudio de las diferentes amenazas
 - Priorizar eventos donde se podían implementar SAT y hacer un listado en función de impactos de los eventos.
 - Involucrar de una manera mas directa a la comunidad.
-

El Salvador (in Spanish)

Level of Progress achieved:

2 - Some progress, but without systematic policy and/ or institutional commitment

Description:

En El Salvador, se ha trabajado muy poco el tema de estudios de riesgo (amenaza y vulnerabilidad). Con mayor frecuencia encontramos estudios de amenaza, careciendo del componente de vulnerabilidad; sin embargo, estos estudios se realizan cuando los eventos ya han impactado en zonas específicas y dejan a flote la fragilidad del territorio. Es importante resaltar que estos buenos esfuerzos carecen de una política que estandarice metodologías y sistematice los mismos; más bien lo que existe son esfuerzos buenos pero dispersos.

La difusión de los estudios existentes aún es pobre, sobre todo en el nivel local.

Context & Constraints:

Coordinar esfuerzos encaminados a la estandarización de metodologías de valoración de riesgo y difusión de los mismos.

Realizar estudios de riesgo en los diferentes sectores.

Fortalecer las capacidades a todo nivel para valorar el riesgo y no confundir términos tan básicos e importantes.

Jamaica (in English)

Level of Progress achieved:

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

There is a deliberate effort at collecting and making hazard and vulnerability data available. This is usually through damage assessment reports, a national disaster catalogue and annual incident reports and hazard maps prepared by the respective technical agencies. These reports are available to the general public to inform their projects. This information has also guided our intervention in communities and has been used in the preparation of hazard inventory maps and hazard maps. Hazard data has also been used in the development of a methodology to rank vulnerable communities. Academia has also been instrumental in researching some of this data.

So far, no risk assessments have been undertaken for key sectors but efforts are currently underway to achieve this in the agriculture and tourism sectors. The housing sector will be focused on towards the end of the 2008-2011 Planning Cycle.

Context & Constraints:

Challenges

- Resources to undertake sectoral risk assessments are limited
- Priorities for the national disaster office and sectors sometimes differ and so getting the support and buy-in at the time of implementation is sometimes difficult
- Little ownership of Disaster Management Responsibility at the sector levels.

Recommendations

- The current strategic plan will focus on the agriculture and tourism sectors. Work in those areas have already commenced and are at the initial stages. The entire project is expected to include risk assessments and mitigation plans. The housing sector will be focused on later in the planning period.
 - For the tourism sector, project funding is being recommended to overcome the funding challenge
 - Line Ministries to make provisions for Disaster in Annual Budget and Strategic Plan
-

Panama (in Spanish)

Level of Progress achieved:

2 - Some progress, but without systematic policy and/ or institutional commitment

Description:

Existen las evaluaciones de los riesgos nacionales y locales con base real y están disponibles.

Ejemplo: Se han realizado Inspecciones Técnicas en acciones de prevención y mitigación, desarrollando cambios en los procesos de viviendas para el control de la erosión en desarrollos urbanísticos y de cuencas, contribuyendo a reducir el impacto de las inundaciones sobre las más vulnerables y así evitar que las personas construyan en áreas de riesgos

Se cuenta con Mapas de Amenazas a Inundaciones del Sector Este del Distrito de Panamá; Tocumén; 8 comunidades de la Provincia de Darién y 10 distritos del Corregimientos de Changuinola en Bocas del Toro, como herramienta para la toma de decisión y manejo de desastres de áreas vulnerables.

Se han incrementado las inspecciones técnicas especializadas, evaluaciones de riesgos en zonas vulnerables e impactadas por el colapso de estructuras, inundaciones y deslizamientos. (Ejemplos: Casco Antiguo; Provincias de Chiriquí; Panamá Centro, Este y Oeste; el Distrito de San Miguelito).

Igualmente se incrementó la evaluación de Estudios de Impacto Ambiental, en lo referente al criterio técnico de prevención de desastres.

Este material esta disponible a la consulta.

En el caso de la CSS, a través de los comités locales de riesgos, ya se han identificado las amenazas potenciales de las Unidades Ejecutoras, aunque aún falta mucho trabajo por desarrollar, e investigar de forma que les conduzca a un verdadera identificación y validación de los resultados de riesgos de las instalaciones sanitarias.

Context & Constraints:

Este es uno de los puntos más importantes y que no mantenemos mucho avance propiamente; por lo cual es necesario que se destaque más acciones en este renglón.

Limitantes:

Se requiere:

- Utilizar la Plataforma Nacional para la creación de declaraciones que ayuden en la determinación de las

áreas vulnerables del país.

- Falta recurso económico para la realización de estas iniciativas evaluaciones de riesgo.
 - Faltan Modelos Conceptuales de fenómenos adversos.
 - Efectuar evaluaciones sobre amenazas naturales del país.
 - Evaluación de la vulnerabilidad de estructuras y líneas vitales.
 - Realizar estudios de microzonificación sísmica y riesgo sísmico estructural en las principales ciudades de panamá.
 - Estudios de vulnerabilidad de incendios en edificios altos.
 - Tenemos un crecimiento urbanístico bastante acelerado por lo cual es primordial que este desarrollo vaya de la mano de la seguridad y de evitar la destrucción de recursos naturales. Hay que tomar acciones para evitar que se incumpla la ley.
 - Fortalecer la investigación en los temas de sismología, cambio climático y ordenamiento territorial.
 - Falta de tecnologías y medios informáticos para la delimitación matemática y científica de las amenazas y estimación probabilística de la gestión de riesgos.
-

Peru (in Spanish)

Level of Progress achieved:

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

Nivel Progreso 3:

En el Perú como en el resto de países que conforman la Estrategia Andina PÀD, se ha concertado la elaboración de un inventario histórico de desastres ocurridos en los últimos treinta años, y se tiene implementado un centro de documentación virtual para la gestión de riesgos y la prevención de desastres. Existen Lineamientos de Política de Ordenamiento Territorial, el cual incluye la Evaluación de Riesgos (EVAR); estando pendiente su incorporación en los Planes de Desarrollo Concertados de algunos Gobiernos Regionales y Locales.

Esta articulado el Sistema de Información Nacional PAD con todos los organismos del SINADECI. Además, existe un compromiso institucional y labor permanente del ente rector, e instituciones técnicas científicas; y algunos sectores, más no en los gobiernos locales. Esta última situación, incluso podría hacer que el nivel de progreso descienda a nivel 2.

Context & Constraints:

LIMITACIONES

- Débil cultura de prevención por parte de las poblaciones involucradas
- Insuficiente decisión política (GGRR y GLL) en la implementación de la normatividad establecida y sostenibilidad de las políticas vigentes.
- Insuficientes recursos humanos y financieros para la vigilancia y documentación y difusión de los fenómenos naturales peligrosos
- Insuficiente articulación interinstitucional, dificulta el acceso a información técnica especializada
- Limitado compromiso institucional a nivel de los gobiernos regionales y locales
- Existe vigilancia y documentación parcial sobre determinados fenómenos naturales peligrosos
- Los gobiernos locales tienen condiciones socioeconómicas bajas que limitan el desarrollo de evaluaciones de riesgo
- Algunos estudios y evaluaciones tienen limitaciones respecto a su alcance y difusión.

RECOMENDACIONES

- Implementar programas de difusión a nivel nacional con énfasis en la zona altoandina para el desarrollo de una cultura de prevención, en las lenguas oficiales

- Promover la fiscalización y la acción firme del órgano contralor para garantizar el uso efectivo de los fondos destinados para el fomento de la cultura de la prevención
-

Saint Lucia (in English)

Level of Progress achieved:

2 - Some progress, but without systematic policy and/ or institutional commitment

Description:

Vulnerability Assessments, Hazard Maps and Risk Assessments for critical facilities have been conducted for flooding due to storm/wind surge, winds, drought and debris flow. These were apparently developed or conducted under different projects and not in a coordinated systematic manner. However, these products are not being generally used to support decision making.

Context & Constraints:

There is a need to develop more of these products in a more systematic manner and to provide for their timely update. Further the relevant agencies need to be trained and sensitized in using them to support their decision making. Policy decisions need to be adopted to cause agencies such as the insurance firms to consider the use of DRR strategies as a basis for offering lower premiums to their clients. This policy can be further enhanced by way of legislation.

United States of America (in English)

Level of Progress achieved:

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

The United States has invested in the development of loss-estimation capabilities such as the Hazards US - Multi-Hazard (HAZUS-MH) software package developed by the Federal Emergency Management Agency. This software incorporates the current understanding of hazard with inventories of structures and other data to estimate losses. The Federal government has made substantial investments in assessments for multiple hazards. In order to make hazards more real to decisionmakers and the public, scenarios for specific high-impact natural hazard events have been developed for a number of cities. Considerable investment is required to fully implement risk assessment capabilities on a national basis.

Context & Constraints:

See above.

Venezuela, Bolivarian Rep of (in Spanish)

Level of Progress achieved:

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

Instituciones como el Centro Nacional de Pronósticos Hidrometeorológicos, la Fundación Venezolana de Investigaciones Sismológicas (FUNVISIS) y el Ministerio del Poder Popular para el Ambiente poseen la tecnología para la detección, seguimiento y evaluación de amenazas hidrometeorológicas, sísmicas, amenazas en cuencas hidrográficas a nivel local y nacional, sin embargo los resultados no se difunden ampliamente entre las instituciones.

En los principales centros de salud se han realizado estudios de vulnerabilidad, sin emprender aun soluciones para reducir las condiciones de riesgo. La mayoría de los centros no cuentan con ningún tipo de evaluación de riesgo.

El Ministerio del Poder Popular para la Planificación y Desarrollo, ha desarrollado un proceso de recopilación de datos sobre las amenazas y factores de vulnerabilidad a escala micro, incorporando la dimensión del riesgo de desastres progresivamente en los planes de desarrollo, en sus distintos niveles de actuación: local, regional y nacional.

Por otro lado, en el ámbito de la Defensa, a través del Servicio de Meteorología de la Aviación Nacional Bolivariana posee un banco de datos climatológicos, que es procesado en un sistema computarizado.

Asímismo, las Direcciones de Protección Civil y Administración de Desastres, a nivel nacional, estatal y municipal, realizan evaluaciones de riesgos en todos los sectores, principalmente en las zonas de viviendas informales; sin embargo, éstas no son realizadas con una metodología de valoración cuantitativa. Actualmente se está efectuando la caracterización de los riesgos a nivel nacional y se están elaborando formatos de evaluaciones únicos.

Context & Constraints:

Fortalecer el recurso humano capacitado y aumentar los recursos materiales y financieros destinados a la evaluación de los riesgos nacionales, basados en los datos sobre las amenazas y vulnerabilidades.

Sensibilizar a las instancias decisorias para fomentar la evaluación de los riesgos, en base a datos de amenazas y vulnerabilidades, en todos los ámbitos nacionales.

Informar e incorporar a las comunidades en acciones para la reducción de riesgos, por lo que la difusión de la información existente, de manera adecuada y eficaz, es relevante para que esté al alcance de todos los sectores.

Integrar y complementar todos los estudios realizados por las distintas instituciones (sector privado, publico, universitario, científico, comunitario, entre otros) encargadas de la evaluación de las amenazas, vulnerabilidades o riesgos.

Asia

Bahrain (in English)

Level of Progress achieved:

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

- Risk Assessments have been carried out using both National resources and also International Consultants.
- However, an up to date formal National Multi-Agency Risk Assessment will take place in October 2008 under guidance of the UK Emergency Planning College. This Course will do much to overcome barriers between agencies.
- Following this, a full Hazard Profile will be produced with coordination and prioritisation supervised by the NCDM.
- Bahrain is a small Nation and therefore Community involvement is limited in terms of responsibilities, but their concerns are heard and actioned if justified.

Context & Constraints:

- Due to insufficient legislative support, and lack of focal points within various organisations, the results of risk assessments and risk matrix are currently not centrally coordinated or implemented fully.
 - Nor has any prioritisation between risks been carried out - however see above.
 - There is still some resistance to data sharing, however with enactment of the draft law, it is expected that such resistance will be overcome.
 - Communities are encouraged to report and if feasible take local action to reduce risks which they identify. However, what data is available to them in certain areas, remains to be identified.
-

Bangladesh (in English)

Level of Progress achieved:

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

National risk assessment for flood and cyclone exist, but they require updating in the context of changes in environment, topography and population and demography. MoFDM has initiated detailed risk assessment for earthquake and tsunami.

The local risk assessment is done in most high risk areas, by the GoB and various humanitarian actors using array of participatory tools. The same is true regarding river bank erosion and prediction model has been developed. Drought prone areas are identified and adaptation processes are being developed in the same period.

Action-oriented researches are underway to generate more knowledge on the impact of climate change at local and international levels. Progress has been made in assessing risk in agriculture. Some activities also initiated to assess risk in selected hospital, schools and cyclone shelters by various stakeholders.

Context & Constraints:

Country promoted diversity in testing various methodologies in local risk assessment, led by various public and private organizations. But there has been a perceived need to standardize methodology for risk assessment and mapping. Risk assessment of critical sectors such as health, water and sanitation, shelter, education and food security is urgent priority. A digital elevation model (DEM) needs to be developed with updated contour data for better inundation information with depth during flood and storm surges

Cambodia (in English)

Level of Progress achieved:

2 - Some progress, but without systematic policy and/ or institutional commitment

Description:

There is some statistical information of the national and local risk, multi-hazard data, vulnerability information, but the information and data is not periodically and regularly developed, updated, and disseminated widely to decision-makers, general public and communities. In generally, the hazard data and vulnerability information and data is developed, updated, and disseminated separately by individual national authorities and partner agencies to serve for their purposes respectively, for instance, the disaster risk reduction partner agencies, who is responsible to implement the disaster risk reduction measures at local levels, they usually conduct hazard, vulnerability and capacity assessment (HVCA) to collect information of hazards, vulnerabilities and capacities for formulating local disaster preparedness, mitigation and prevention plan, while local authorities are engaged in the process of assessment. In addition to this, most development agencies usually conduct the surveys or assessment to collect the relevant information or other references to design and implement the development plan, but the significant challenges and constrains is that it does not have mechanism to maintain, update, utilize and disseminate the data or information properly.

Context & Constraints:

In general, there have been some critical constrains and challenges encountering by the country, national authorities and partner agencies on development, update, and dissemination of national and local disaster risk assessment in Cambodia, including:

- Mechanisms and systems to collect, maintain, update and utilize the data and information of hazards, vulnerabilities and other relevant information are recognized the limitation
- Limited human resources and equipments for maintaining and updating, and dissemination of data and information.
- Limited capacities and knowledge on disaster risk reduction concept while the national and local authorities consider that emergency relief is more important than risk reduction, preparedness, prevention and mitigation.

Recommendation to Overcome:

To ensure the regular and periodic development, update, collection and improved dissemination of statistical information of hazards and vulnerabilities to decision-makers, general public and communities, recommended suggestions should be considered to address by national and sub-national levels as following:

- Appropriate mechanisms to develop, update, collect, maintain and dissemination of statistical information of hazards, vulnerabilities and disaster risk should consider as one of the top priorities of national and sub-national levels
- Human resources and equipments at all levels to effectively serve for development, updating, record, analysis, maintaining and disseminating data and information of hazards, vulnerabilities and disaster risk should be implemented in the national context and needs.

India (in English)

Level of Progress achieved:

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

The first Vulnerability Atlas of India was prepared in 1997 which got further revised in 2006. The Atlas provides information on natural hazard risks and level of vulnerability of the housing types at state and district level along with macro hazard maps. It covers key hazards like earthquakes, floods, cyclones, landslides and provides district level housing risk analysis statements by combining local hazard intensity and vulnerability of the existing housing types. Individual state disaster management authorities like Gujarat State Disaster Management Authority (GSDMA), Orissa State Disaster Mitigation Authority (OSDMA), and Department of Relief and Rehabilitation, Government of Maharashtra have also carried out hazard risk and vulnerability assessment studies. Some of these studies apart from assessing the vulnerability of the critical infrastructures also included socio-economic vulnerability analysis and have attempted to estimate the loss including the non-monetary costs (social and environmental). Many of the Disaster Management Plans prepared by different state governments and district administrations include detailed hazard risk assessment.

Context & Constraints:

In India due to the federal structure of the government, disaster management is essentially a subject dealt by the state governments. The individual state governments while preparing their state level disaster management plans need to carry out a detailed hazard risk and vulnerability assessment which will guide them in designing adequate mitigation and preventive measures to reduce disaster risks. Such assessments at state and level below are largely driven by the political commitment existing at the state, resources available for carrying out such studies, records of devastating disasters which have hit the economy of the state badly in the past and the capacity of the existing government institutions, academic and research organizations to conduct such studies. Lack of local level micro hazard maps as well as data on socio-economic parameters which are essential for carrying out hazard risk and vulnerability analysis also pose a challenge. There is a sincere need to prepare local level micro hazard maps and dedicated resources should be made available for it. Other existing challenges are strengthening capacities of research and academic institutions to conduct risk and vulnerability assessment of key sectors, improving the understanding of the interdependencies across sectors and assessing socio-economic loss.

Indonesia (in English)**Level of Progress achieved:**

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

In formulating disaster risk reduction programs, data and information related to the existing hazards and vulnerabilities are needed. At the national level hazard data have been produced by the different sectoral ministries. DIBI (by National Agency for Disaster Management/BNPB), PIRBA (by Ministry of Research and Technology/Menristek), and SIMBA (by National Agency for Space and Aeronautics/LAPAN), are among the instances. The Ministry of Home Affairs, through the Minister of Home Affairs Regulation (Permendagri) No. 46 Year 2008, has ordered or recommended that district/city governments collect and report hazard related data in their areas. Several regions have met these requirements, although it has not been optimal.

Presidential Regulation No. 8 Year 2008 stipulates the set-up of disaster management bodies (Badan Disaster Management Daerah/BPBD) in the regions and one of the functions of BPBD is to prepare hazard maps of their regions. Several regions have already had meta data that could be used as a basis for risk assessment. Capacity building is needed for local governments and local universities or disaster research centers will need to be engaged to support local BPBDs in conducting hazard and risk mapping.

Several risk assessment initiatives have been developed, particularly in areas that have experienced major disasters. The method used in this risk assessment, however, is different from one area to the other. Without standardization in the risk assessment method used, the risk assessment will yield different results

that will be confusing for the end users. Data and information related to vulnerability are also still very limited. To address this issue, the government through the BNPB is in the process of preparing a standard guideline in risk assessment that could easily be implemented at the local level.

Context & Constraints:

Hazard maps and hazard information are basically sectoral, so that the same information is often produced by different agencies, although with different methodologies and non-standardized techniques. As a result, the information produced is confusing, does not meet established criteria and difficult to be overlaid with the other maps to make a more comprehensive risk assessment. Thus, there is a need for a risk assessment product that meets scientific requirements as well as can serve as a reference for the national and local levels.

In general, regions affected by disasters have more initiatives in conducting risk assessment. The bigger the disaster suffered by a region, the more initiatives related to risk assessment conducted in the region by the local government or other interested stakeholders. Still, local governments need support from external parties in developing risk assessment and vulnerability analysis. Data and information related to vulnerability and risk assessment has mostly not been integrated optimally into local spatial plans.

To address the above challenges, cooperation needs to be built among agencies developing risk maps to synergize the existing maps into integrated and comprehensive maps. The National Agency for Disaster Management needs to have standardized maps developed by sectoral agencies or ministries. Thus, parties in need of data and information related to hazards, vulnerability and risk assessment can access standardized maps that have been endorsed by BNPB. Besides, the maps produced should also be integrated to the existing database system, so that the accessibility and utilization of the maps could be optimized.

In order that agencies/organizations that develop data and information related to hazards, vulnerability and risk assessment can produce reliable products, there is a need for a policy guideline on the formulation of standardized maps, which currently is still being prepared under the coordination by BNPB.

It is also necessary to have standardized maps and consistent information that is accountable to the public as means to increase the institutional capacity of NADM and LADM through transfer of knowledge process from donor/international agencies as well as from other areas,

Iran, Islamic Rep of (in English)

Level of Progress achieved:

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

- 2. Identify, assess and monitor disaster risks and enhance early warning

i: National and Local risk assessments

Ssesimic hazard analysis and mapping is being implimented for the urban area throught out the country in scale of 1:25000.

Active faultl study and Preparing related hazaed Map for some faults.

Detailed Seismic and Active Fault Maps prepared for Tehran city.

Estimation of Human Casualty and Building Damage

- Development of relevant city geo-databases and generating 2D & 3D Risk Maps for a district of Tehran
- Structural and Vulnerability Functions and Structural Fragility Curve developed for Tehran.

- Development of the guidelines and standards for strengthening and retrofitting of existing buildings.
- Supporting national and local governments for implementation of the necessary activities for risk reduction

Context & Constraints:

Insufficient information dissemination results in lack of awareness among in the community for observing standards for construction of safe buildings against disasters and lack of risk transfer schemes that burdens additional responsibility on the government for compensating disaster damages. The roll of media is not satisfactory in provision of attractive programs for the audience. There is a need for capacity building and coordination among members of the stakeholders at national, prevention and local level for making easements of disaster risk in the frame work of teamwork.

Japan (in English)

Level of Progress achieved:

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

Japan has carried out hazard mapping with regard to tsunamis, tidal waves, flooding, landslides, volcanic eruptions and earthquakes. Progress has also been made in the development of dynamic flood hazard maps which predict how the flooding will spread over time. The scale of these maps varies from 1/2,500 to 1/25,000 according to purpose. Many hazard maps have been drafted by local public bodies: the Cabinet Office, the Ministry of Agriculture, Forestry and Fisheries of Japan, the Fisheries Agency, the Ministry of Land, Infrastructure and Transport and other agencies have drawn up manuals on the subject. In addition, the 2005 revised version of the Flood Fighting Act, for example, obligates municipalities containing zones expected to be inundated as announced by the MLIT to compile a flooding hazard map and to distribute copies of it to each household. A total of 493 municipalities throughout Japan have so far published and distributed their hazard maps in print or other means as of July 2007. Many of the developed maps have been made available to the general public on the internet and elsewhere. In April 2007, Ministry of Land, Infrastructure and Transport launched portal site which allows users to search and view various hazard maps compiled by municipalities on the Internet.

In addition, based on the study by the Committees for Technical Investigation under the Central Disaster Management Council, the government has published assessment of damages and countermeasures in case of possible large-scale disasters including the Tonankai and Nankai Earthquakes, the Tokyo Inland

Earthquakes, the Trench-type Earthquakes in the Vicinity of the Japan and Chishima Trenches, and large-scale flood in the Tokyo metropolitan area. For example, recently in November 2007, the result of the assessment of damages including infrastructure and human damages by the Inland Earthquake in the Chubu region and the Kinki region were made available to the public. Further, the Committee for Technical Investigation on Large-scale Flood countermeasures, which was established in 2006, published the estimation of inundation caused by overflow of the Arakawa River System in October 2007, and the assessment of damage by the surge of the Tokyo Bay in case of the occurrence of a large-scale flood disaster in March 2008.

Context & Constraints:

Some of the maps are not open to the general public. Further, promotion of proper understanding of public on importance of hazard maps and risk information shown on the maps are required.

Kazakhstan (in English)

Level of Progress achieved:

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

For these purposes the Catalogue of Natural and Man-made Risks has been developed in Kazakhstan. This provides to estimate a risk degree, possible sequences for preparedness for rescue troops, engineering services during ES.

To improve an emergency assessment a revising of Safety Passports of Regions, Astana and Almaty for ES has been carried out.

The Conception for the system of independent risk assessment in a fire safety which supposes a partly substitution of national control has been also developed and approved by the Governmental Decree No 857, 18 September 2008. This Conception is directed on a total exclusion of planning fire control of private sector by national bodies.

Context & Constraints:

n/a

Korea, Rep of (in English)

Level of Progress achieved:

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

Disaster-prone areas and risky small creeks are checked and assessed regularly to minimize disaster potential and several early warning systems have been adopted against typhoon, heavy rainfall, earthquake, and tsunami using information technology.

Since Aug. 2005, disaster-prone areas are systematically managed categorizing them with types and seriousness. Six categories are adopted as inundation area, washed-away zone, isolation area, collapse area, vulnerable facilities, and storm surge area.

Based on the nationwide survey in 2006, 352 areas are designated as new disaster-prone areas.

Context & Constraints:

Since the designation of disaster-prone areas can affect the real-estate price in the areas and vicinity, the designation processes including vulnerability assessment are sometimes pressurized by political reason.

Kyrgyzstan (in English)

Level of Progress achieved:

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

Disaster risk assessment in the Kyrgyz Republic is very important. Thus almost for all most disaster-prone area there have been designed the risk maps: seismic map, maps of landslides, mudflows, erosion, avalanches, etc. Highly qualified specialists took part in the development of these maps. Now these maps require general update to be implemented with the help of GIS equipment. Partial update of these maps was conducted in the relevant subdivisions of MoES of the Kyrgyz Republic. These maps were scanned, digitalized, and are now available in the GIS format. They can further be successfully used for disaster threat and risk assessment.

Nowadays disaster risk and vulnerability assessment is very important as the results of such assessments are of great economic value for planning of construction of the important economic objects, urban construction, preparation of the state development strategy, risk reduction strategy, disaster preparedness and response plans.

Unfortunately, not much attention was paid to disaster vulnerability and risk assessment during previous time, thus the existing risk and vulnerability maps have not been designed. Even nowadays the state institutions responsible for monitoring of disaster processes do not have the fundamental methodology of such assessments. In some cases there are only the qualitative characteristics of such assessments. The main activity on the monitoring of the natural processes is implemented by the Department on Emergencies Monitoring and Forecasting, MoES of the Kyrgyz Republic.

1. The summarized and analyzed information on the settlements and industrial-economic objects located in disaster-prone areas, received by this Department is further submitted to the relevant subdivisions of MoES of the Kyrgyz Republic and local executive authorities for further implementation of preventive measures. At the moment these data are the key source of the information for MoES specialists to conduct monitoring of emergency situations in various disaster-prone areas of the republic. In some cases such survey activities are implemented upon the order of the Government of the Kyrgyz Republic and alarm calls from the local authorities of various areas.

2. Another key source of obtaining and accumulation of the information on monitoring and forecasting of mudflows and floods is the Hydrometeorology Agency of MoES. The timely information on accumulation of precipitations in river basins of Kyrgyzstan and the relevant forecasting of the average water run-off for the vegetation period. This Agency forecasts the expected mudflows and floods in the river basins. This information is immediately transmitted to the regional subdivisions of MoES of the Kyrgyz Republic and local authorities for further joint prevention and mitigation measures.

3. Seismological monitoring of the territory of the Kyrgyz Republic is implemented by the Seismology Institute of Academy of Sciences of the Kyrgyz Republic. The activities of this Institute is at a very low level because almost all seismic stations of the Kyrgyz Republic were constructed during the Soviet period and their equipment was not modernized since that time.

Context & Constraints:

In the context of insufficient funding of activity of the Department on Emergencies Monitoring and Forecasting, MoES of the Kyrgyz Republic it is impossible to conduct the monitoring of very dangerous processes in remote and hard-to-reach areas. Thus the continuous monitoring and forecasting of disasters are almost impossible. At the moment planning of separate measures on disaster prevention is based on the using of the analytical information provided by the Department on Emergencies Monitoring and Forecasting, behavior of the main threatening disaster, and the preventive activities developed by this Department.

Processing of the data received from the seismic stations is often delayed. Thus the continuous seismological monitoring of the Kyrgyz Republic is not conducted. To strengthen the efficiency of the Seismology Institute activity it is required to establish up-to-date digital seismological stations that can cover the whole country.

The main constraints and difficulties in the work of the governmental and international partner organizations in the issues of disaster threat, vulnerability and risk assessment are as follows:

1. Poor coordination of activity of the science-research institutions.
2. Lack of the sustainable system of communication and information exchange.
3. Domination of personal interests of separate organizations on development and introduction of the methodology related to disaster threat and risk assessment.
4. Poorly developed system of sharing the experience on the new technologies introduction (GIS, new systems of positioning and remote sensing, etc.)

Positive solution of these problems will allow overcoming the difficulties in this field.

Lao People's Democratic Republic (in English)

Level of Progress achieved:

2 - Some progress, but without systematic policy and/ or institutional commitment

Description:

The Mekong River Commission is undertaking the Flood Vulnerability Assessment and Mapping Project (FVAMP-started in June 2007) which is intended to provide flood vulnerability indices to better manage flood and drought impacts in the Lower Mekong Basin. As of February 2008, the project has established that the national line agencies have a more consistent data collection system and their dataset seems to contain substantial information that can be useful for FVAMP. NGOs and international organizations collect data more proactively through community based survey under their rural development and disaster risk reduction projects in remote villages and some others along the Mekong and its tributary rivers for flood vulnerability assessments.

A report from the project concluded that all agencies are generally willing to participate in the FVAMP in terms of sharing available data and information in the next phase project. However, almost all agencies recommended that the orientation meeting and a series of consultation should be conducted beforehand. All concerned agencies should be invited to share their ideas on the data collection methodologies and implementation for the next phase.

Context & Constraints:

Although useful data for vulnerability assessments exist in line agencies, NGOs and UN agencies, there is no plan, leadership or incentives to more systematically share information, which may contribute to a comprehensive vulnerability assessment. Limited expertise in hazard assessments is another important constraint to be addressed in the future.

Maldives (in English)

Level of Progress achieved:

2 - Some progress, but without systematic policy and/ or institutional commitment

Description:

A detailed Disaster Risk assessment was carried out in 13 islands that are currently the targeted growth nodes in their respective islands of the country by the Planning department. The report is in its final stages. This is to supplement the country level assessment that was carried out by the Government of Maldives with the assistance from international partners to develop the disaster risk profile for the Maldives. In 2005, Disaster Risk Profile of the Maldives was published

Context & Constraints:

Local risk assessments are a tedious process in the country as there are nearly 300 odd islands to be considered. The National assessment has been a project based initiative and no effort by any government agency to fine tune it as per the requirement of their sector is seen due to lack of incorporation methods. Local risk assessment could be realized by involving a partnership either with the community or with the school children through simple methods of data collection and reporting.

Nepal (in English)**Level of Progress achieved:**

2 - Some progress, but without systematic policy and/ or institutional commitment

Description:

Few agencies (both government and non-government) have initiated local level hazard mapping in few communities. However, such information is scattered and scanty. There is no national level multi-hazard risk assessment covering regularly occurring disasters such as floods, landslides, etc. However, a historical record of disaster occurrence called "Desinventar" for last 35 years at national level is available and regularly updated. Unfortunately, no proper use of such information on planning and decision making process as of now. Some NGO/INGO are undertaking research projects to better understand local adaptation strategies to natural hazard risks. International organization such as International Centre for Integrated Mountain Development (ICIMOD) has initiated process to assess the socio-economic impacts of GLOFs and flash floods through case studies. Similarly, ICIMOD and UNDP together with relevant government agencies have been involved in GLOF hazards assessment and monitoring in specific areas.

Context & Constraints:

Key Contextual Challenges:

No initiative by both government and non-government sectors to undertake a national level multi-hazard risk assessment covering major and annually recurring natural disasters such as flood, landslides, drought, fire, epidemics, earthquake, etc. Also most of the available information on disaster occurrences has not been used for any planning and decision making purpose.

Some Recommendations:

Concerned Government Ministry in close cooperation/ collaboration with non-government agencies should initiate a national level risk assessment exercise covering major hazards in the country. This single exercise will enable all agencies working in the field of DRR to identify the most vulnerable communities, major hazards, disaster prone districts/ VDCs/ communities. This information can also be used for any development planning initiatives in the country.

Pakistan (in English)**Level of Progress achieved:**

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

The progress on this account may be taken at level three. Institutional commitment has been attained through identification of National Hazard and Vulnerability Assessment as one of the priority areas in the National Disaster Risk Management Framework. Accordingly, the NDMA has launched the the National Composite Risk Assessment Project.

The initiative is aimed at carrying out a comprehensive risk analysis and hazard mapping of Pakistan. The

digitalized hazards maps will be integrated into the GIS system for accurate and timely decision making in the field of disaster management. The Project is a multi-sectoral exercise, encompassing geological, hydro-meteorological and technological hazards and a major part is expected to be completed by June 2009

Apart from the above major initiative taken by the NDMA, local level risk assessment exercises have been done by a number of stakeholders in small cities and districts; e.g. Earthquake Reconstructions and Rehabilitation Authority (ERRA), UNDP, FAO, Pakistan Space and Upper Atmosphere Research Commission (SUPARCO), Aga Khan Planning and Building Service (AKPBS) and OXFAM. The NDMA is in touch with these organizations to benefit from the local level assessment results.

Context & Constraints:

The foremost challenge faced by the NDMA in carrying out National Risk Assessment is the non availability of local expertise and professionals which is further exacerbated by technological gap in the field. In the given scenario, scarce resources are consumed in procurement of professional services from international market which adversely impacts the implementation of risk assessment initiative.

Reliable data is a very important input in carrying out Risk analysis. This can be turned out as the weakest link in the ongoing risk assessment exercise. Data availability in Pakistan is far from desirable levels. It is scattered, most oftenly inaccessible and sometimes suffers from lack of reliability. In such a situation, collection of data and subsequent hazard analysis becomes a very intriguing job for the project implementers.

Philippines (in English)

Level of Progress achieved:

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

Risk assessments conducted so far cover about one-fourth of the country's land area through an ongoing project described below. Much needs to be done in terms of making relevant procedures part of normal business operations of concerned government agencies.

A pioneering multi-agency and multi-level effort is the "Hazards Mapping and Assessment for Effective Community-Based Disaster Risk Management Project" (called READY) which is funded by a \$1.9-million grant the AusAID with technical assistance from UNDP for the period 2006-2011. The project covers 28 provinces which have been selected on the bases of the hazard level (frequency and magnitude), elements at risks, availability of base maps, peace and order situation, economic indicators, and accessibility. READY builds on the experience of an earlier project using a similar approach. Together with local stakeholders, hazard maps are produced and community-based early warning systems are established. Through these tools, community residents are better prepared against geologic and hydro-meteorological hazards and are enabled to make sound decisions about locating settlements and human activities, thus empowering them in the process. In order to get the tools ready, Mines and Geosciences Bureau (MGB), Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA), Philippine Institute of Volcanology and Seismology (PHIVOLCS), National Mapping and Information Resources Authority (NAMRIA) and OCD need to work out a whole system by which the harmonized product is delivered.

Manila Observatory, a private non-stock, non-profit and scientific research institution, also engages into disaster vulnerability and land-use mapping and classification. The institution developed a report entitled "Mapping Philippine Vulnerability to Environmental Disasters." Hazards and vulnerability were mapped and analyzed using Geographic Information System (GIS) and environmental modeling tools.

Context & Constraints:

The big challenge is to go beyond successes in project implementation and continue or adopt procedures, institutional arrangements, and mechanisms as part of day-to-day business and practice. The field of DRM is just taking root in the country and needs full cooperation among scientists and engineers. In this regard, since maps are the bases of understanding risks and vulnerabilities, appropriate protocols and procedures must be put in place to ensure harmonization. Healthy scientific exchanges should be encouraged so knowledge can be furthered and promoted evidence-based agreements for the benefit of the wider population.

Local chief executives must be educated about how risk assessment can help them serve their constituents. In areas not covered by the READY project, LGUs may either continue on indigenous mapping activities or initiate scientific mapping themselves (in coordination with appropriate agencies).

To facilitate the production of risk maps, vulnerability mapping must also be explored by the government. An overlay of multi-hazard and vulnerability maps can produce risk maps which are more indicative of areas, critical infrastructures, and population at risk.

Singapore (in English)

Level of Progress achieved:

5 - Comprehensive achievement with sustained commitment and capacities at all levels

Description:

In the area of disaster monitoring and effective response, SCDF has put in place a robust emergency response system to handle new challenges such as the global threat of terrorism.

In the area of natural hazard, Singapore has completed the tsunami risk assessment on Singapore and has put in place a tsunami response plan from various agencies to deal with any tsunami threat.

Context & Constraints:

Nil

Sri Lanka (in English)

Level of Progress achieved:

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

The national level hazard maps for landslide are developed by National Building Research Organisation and available for practitioners. Risk profiles for landslides are being developed for some of the landslide prone areas.

Risk profile for Kandy Municipal Council area developed as a pilot project.

Local level hazard maps that prepared by community for tsunami affected areas are available.

International workshop was held on 30.03.2009 in Wadduwa to share experience on development of risk profile and agree on a methodology for developing risk profile for flood, tsunami, cyclone, drought and landslides.

Agreement entered with following institutions for the development of risk profile by end of 2010

Floods- Irrigation Dept with Peradeniya University

Tsunami- Coast Conservation Dept. with Peradeniya and Moratuwa universities

Drought- Agricultural Dept.

Rapid assessment for flood impact conducted in 2006 and 2008 for flood affected Kalutara, Gampaha, Colombo and Rathnapura districts for the development of mitigation programme.

A Data base on climate change is maintained by Meteorological Department. The Ocean Observation Centre (OOC) of National Aquatic Resources Research and Development Agency (NARA) also maintaining a physical ocean environmental database.

DMC has developed a data base on disasters from 1974 published in a separate website www.desinventar.lk. Records for past 30 year's data on disasters collected from news papers were revalidated with actual records from districts before publishing in the website. A mechanism for updating data with the assistance of divisional offices is established. EOC collect data and enter in to data base on daily basis.

Policy level approval obtained to consider disaster impact in environment impact assessments process. However small projects which could create disaster situations are not cover by EIA.

Context & Constraints:

Risk profile not available for hazards other than landslides. Capacity of focal agencies responsible for developing risk profiles should be developed.

Technical assistance required to formulate criteria for assessment of disaster impacts of new development projects. National level workshop was held to obtain views of development agencies and EIA practitioners to strenthen the EIA process to consider disaster impacts.

It is compulsory to undertake EIA for all projects above certain limit to get the approval for implementation and funding. However projects of lower value do not require EIA and are not monitored by any agency.

Development of criteria for evaluating smaller project, which donot require an EIA or IEE and training local and district level staff to undertake disaster impacts need to be undertaken.

Community level hazard mapping should be undertaken for all hazard prone villages.

Funding for capacity development programmes are not available at present

Syrian Arab Republic (in English)

Level of Progress achieved:

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

Current work is on preparing assessments for national and local risks which will be feasible to decision makers and society to understand all risks that might occur, and consider the social, economical and environmental weak points which increase risk volumes.

This is based on analytical databases and maps for assessing risks, that will assist communities to take effective action according to type of risks and available capabilities. In addition to build more capacities to reduce the risks as possible and to respond in the best way.

Context & Constraints:

The constraints are the insufficient financial resources and the need to develop experiences in this field.

Tajikistan (in English)

Level of Progress achieved:

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

- 4 - Substantial achievement attained but with recognized limitations in capacities and resources

Assessment of risk of natural disasters was paid much attention in the period of the USSR. That is why the maps of risk were developed for almost all natural disaster hazards for the territory of Tajikistan: seismic, landslide, mudslide, erosion, avalanches, etc. Groups of highly qualified scientists took part in development of those maps (1982-1985). Now, these maps are in need of thorough revision.

Partial revision of these maps was done at the Information and Analytic Center of the Committee for Emergency Situations and Civil Defense. The maps were scanned, digitized and are stored in the GIS format, and in the future can be used in assessment of hazard and risk of disasters.

Assessment of vulnerability and risk of disasters are paid utmost attention in the entire world, because the results of such assessment can be of high economic value in planning of important economic objects, urban planning, development of national development strategy, risk reduction strategy, action plans and plans for response to disasters.

Unfortunately, assessment of vulnerability and risk was not paid due attention then, and therefore the maps of risk and vulnerability and threatening processes were not generated. Even now, the state institutions responsible for monitoring of major threats and processes had not worked out the methodology of such assessment. In some cases, only the qualitative characteristics of such assessments are available.

The most advanced in this sense is FOCUS - Humanitarian Assistance, which with support of specialists from Russian Federation worked out the more detailed methodology for assessment of hazards, vulnerability and risk of natural disasters in the territory of Mountainous Badakhshan of the republic of Tajikistan and compiled the relevant maps for over 200 urban areas.

Assessment of threats and risk of natural disasters at the lower level (community level) is carried out by CCDR, Caritas, Oxfam, Mission East and DRMP, in the Kulob zone of Khatlon region and in the Zarafshon valley in the Sughd region, in close cooperation with the Committee for Emergency Situations and Civil Defense.

Context & Constraints:

The main difficulties and challenges in the work of governmental and international partner organizations in the field of assessment of hazard, vulnerability and disaster risk are:

1. Weak coordination of activities and interaction among these organizations
2. Lack of reliable systems of communications and exchange of information
3. Prevalence of institutional interests of some organizations in development and introduction of methodologies in assessment of hazards and risk of disasters
4. Under-developed system of exchange of experience in introduction of modern technologies (GIS, systems of positioning and remote sensing, etc.)
5. Difficulties related to the state borders and administrative-territorial units

Resolution of these problems will allow overcoming the challenges in this sphere.

Uzbekistan (in English)**Level of Progress achieved:**

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

A mapping system was created in the Republic of Uzbekistan to evaluate various hazards and potential risks. In particular, seismic zoning maps OCP 2001 of the territory of Uzbekistan (S 1:1000000) were developed which specify recurrence (frequency, periodicity) of earthquakes on various levels of recurrence and risk. Seismic zoning maps of Tashkent city; micro-zoning maps of 26 large cities of Uzbekistan on scales of 1:100000; maps of type designs of the territories relevant to the complexity of

geologic-engineering conditions, seismic activity potential, seismogenic zones and other potential sources of natural and technological hazards; maps of maximum possible earthquake magnitudes; maps of hydro meteorological factor risks were developed and compiled.

Vulnerability assessment of assets and capacities is carried out continuously by the operational and territorial subsystems of the SSPR.

Context & Constraints:

Information is not available

Viet Nam (in English)

Level of Progress achieved:

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

Some line agencies, ministries and local authorities have developed natural disaster related databases for their own sectors and purposes. Particularly the statistical system has been developed from commune level to central level. This is a specialized system for collecting the socio-economic development of Viet Nam, in which disaster related data has been included. The data has been regularly updated annually. With their capacities and resources, some line agencies, ministries and local authorities have actively carried out disaster risk assessment for their sectors/localities, such as the disaster risk zoning maps, hazard maps based on available information. In addition with the supports of foreign projects, the risk assessment has also implemented in project areas.

Context & Constraints:

Current system for collecting information and data related to disaster does not cover all countries and sectors. It is developed for some specific purposes of some sectors and localities. This information system is not developed for sharing. The risk assessment is only in the pilot stage in some disaster prone areas and not updated and reviewed annually.

There is not a standardized risk assessment approach and method for relevant stakeholders to apply. Therefore, it is difficult to use and error-prone. Moreover, the maps are not overlapped even in the same areas. Hence, comprehensively analyzing the risks including hazard data and vulnerability information is a real challenge. Furthermore, disaster risk assessment is not required in the socio-economic development projects and plans

Proposed solutions:

In order to solve above motioned challenges, it needs to standardize the risk assessment methodology, and risk mapping with the agreement of all relevant stakeholders. Risk map, and hazard map should follow a consistent standard of GIS format in order to optimize the use and retrieve the information.

The Disaster Management Center, DDMFSC should develop a system to store and share the standardized database and maps. This is to ensure the effective use of standardized and approved risk information and assessment. Any relevant authorized stakeholder can contact DMC to obtain data.

Secondly, the policies and guidelines should be developed and disseminate widely from local to central levels to ensure the development of information system for DRR including hazard database, vulnerability information, risk assessment highly reliable.

Yemen (in English)

Level of Progress achieved:

1 - Minor progress with few signs of forward action in plans or policy

Description:

The term of Early Warning System is not yet included in the majority of Disaster management legal framework system yet but several authorities are practicing the some tasks of some Early warning .These

National bodies can be utilized ,if the suitable resources secured, within an appropriate coordination mechanism to act as Disaster and Climate Change National Early Warning system as follows:

1. For the geological Hazards; the National Center for Seismic and Volcanic Monitoring ,under the Supervision of Ministry of Oil and Minerals.
2. For the Desert Locust attacks, he National Center for Desert Locust Fighting with the Ministry of Agriculture and Irrigation.
3. he National Center for Remote Sensing under the Ministry of Telecommunication and Informational Technology.
4. For the Climate and Meteorological Hazards, Environment Protection Authority under MWE, the National Meteorological Center under the Ministry of Transport, the National Water Resources Authority under MWE

5. The National Information Center under the Presidential Office..

- The General Directorate of Environmental Emergencies within MWE is mandate to address the issues of EWS for the Environmental (Natural and Man-made) hazards including establishing the national Risk Maps

- Presidential Decree No, 218 , year 2005 about the by-law of MWE assigned the Environmental Emergencies General Directorates (EEGD) mandates to direct the Emergencies and Disaster and Climate Change Risk Reduction.

Context & Constraints:

the main constrains are:

- Lacking for the National Strategies and legal framework.
 - lacking for the financial and technical resources.
 - Lacking for knowledge.
 - Lacking for the public and official awareness .
 - Other aspects.
-

Europe

Armenia [\(in English\)](#)

Level of Progress achieved:

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

There are some achievements in development and compiling the digital GIS based hazard and risk maps for the territory of Armenia and specific areas and settlements. The seismic hazard map for the territory of Armenia has once been developed is now under re-evaluation due to emerging new concepts and approaches as well as the rising level of seismic activity in the region. Mapping of secondary hazards such as landslides, rock avalanches and mudflows are carried out by the relevant organizations with foreign support. Current seismic hazard assessments or short term earthquake predictions are regularly provided by the Armenian National Survey for Seismic Protection (Armenian NSSP), the agency functioning within the newly established Ministry of Emergency Situations. The Armenian NSSP has accumulated the valuable experience in the seismic hazard and risk assessment. Two landmark nationwide comprehensive programs adopted by the Government of the Republic of Armenia namely Seismic Risk Reduction in the territory of Armenia and Seismic Risk Reduction in Yerevan-city have been developed and put in action with special emphasis on hazard and risk assessment.

Context & Constraints:

In order to improve risk assessment in Armenia the following measures are needed:

Analysis and interlinking of existing structures and capacities which could be reached by the coordinating efforts of the Ministry of Emergency Situations which is incorporating such key DRR actors like the Armenian NSSP, Armenian Rescue Service and Hydrometeorology and Environment Monitoring Agency. Development of appropriate methodology and common approaches for multi-hazard risk assessment. Mobilization of additional finance, manpower and technology. Improvement of institutional structures to ensure efficient risk assessment.

Bulgaria [\(in English\)](#)

Level of Progress achieved:

1 - Minor progress with few signs of forward action in plans or policy

Description:

Minor progress

Context & Constraints:

More work should be done on the risk assessments based on hazard data

Croatia [\(in English\)](#)

Level of Progress achieved:

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

There is threat assessment in place at all levels. At national level, the protection and rescue system links all state administration bodies and expert institutions, such as Croatian Waters Company, State Office for Radiation Protection and State Office for Nuclear Safety.

Context & Constraints:

The implementation of the SEVESO II Directive has started calling for personnel training at local and national levels in the next one or two years, including the level of operators who will be responsible for the implementation of the Directive.

In order to carry out efficient rescue operations in the aftermath of a disaster or a major accident, a communication system is an imperative, to which purpose the TETRA system is being implemented, which is a long and expensive procedure.

Czech Republic (in English)**Level of Progress achieved:**

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

Databases are available especially for floods and hydrometeorological type of hazards. Problem is with building of databases for all types of risks including man-made disasters.

Context & Constraints:

Coordination and financial constraints.

France (in French)**Level of Progress achieved:**

5 - Comprehensive achievement with sustained commitment and capacities at all levels

Description:

Des bases de données, mises à jour régulièrement, ont été mises en place pour la connaissance des aléas et de la vulnérabilité (création d'un répertoire, cf. Ponts et Chaussées) :

- les axes principaux de la prévention des risques naturels portent sur :

-> la connaissance de l'aléa et de la vulnérabilité, la surveillance des phénomènes, les mesures de protection et de réduction de la vulnérabilité, la gestion du territoire et de l'aménagement (cartographie réglementaire...), l'éducation, la formation, l'information, les retours d'expérience.

- la connaissance des aléas est l'un des piliers majeurs de la prévention des risques. Les différents aléas identifiés sont pris en compte et accompagnés de documents cartographiés et / ou répertoriés dans des bases de données. A titre d'illustration, on citera : les cartes de localisation probable des avalanches, la carte de sismicité, les cartes de mouvements de terrain et cavités souterraines, les atlas de zone inondable, les atlas d'inondation par remontée de nappe, la carte de sécheresse géotechnique, la carte des vents extrêmes

Context & Constraints:

...

Germany (in English)**Level of Progress achieved:**

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

From the federal perspective, the overarching goal is to reduce the impact of extreme incidents on critical infrastructures and to be better prepared to handle anticipated crises. As a result, the "Federal Office for

Civil Protection and Disaster Response” (BBK: see the link below) has developed a guide, “Critical Infrastructure Protection: Risk and Crisis Management” in cooperation with the private sector, government authorities and a research institute (see the attached PDF). This guide offers methods for implementing risk and crisis management and practical tools in the form of examples and checklists. The guide applies to all sectors and is intended for companies and government authorities as a tool for self-analysis. It is separated in five phases: planning, risk assessment, preventive strategies, crisis management and evaluation. The BBK has likewise developed its approach to provide a scientifically sound and practicable method for GIS-aided risk analyses in civil protection that is applicable to all administrative levels. It has also conducted its risk analyses for different hazards and subjects of protection at a national level.

Based on long-term data, the “German Meteorological Service” (DWD: see link) provides risk maps for the excess of certain extreme weather conditions, while the “Center for Disaster Management and Risk Reduction Technology” (CEDIM), in addition to other scientific institutes, develops national and country-specific risk assessments for natural hazards (see the link to the CEDIM Risk Explorer). They are also regularly in contact with institutions like the “German Association of Cities and Towns” or the “German County Association” in order to achieve the advancement of local assessment mechanisms. In particular, the floods of the last decade have sparked improved co-operation between the Federal States (Laender), the German state and other countries in forecasting floods.

The German insurance industry has sophisticated and detailed methods for risk assessment, including the “NATural Hazards Assessment Network” (NATHAN: see link) of the “Munich Re Group”.

The German scientific landscape and other actors (such as the GTZ) have also begun implementing these methods with international partners, such as the “German Indonesian Tsunami Early Warning System”, for example (GITEWS: see link).

The German development cooperation supports risk assessments in its partner countries depending on the level at which the cooperation takes place. These assessments include hazard data and vulnerability information to incorporate DRR-measures into the development plans.

Context & Constraints:

National risk assessments are available, with a focus on risk identification and characterisation, in which critical infrastructure is currently identified as the main problem. However, an exhaustive examination and compilation of all available information (e.g., the meteorological data from the DWD) has not taken place due to a scarcity of resources. Therefore the DWD aims to increase its ability in some areas, such as the forecasting of precipitation to assure the projection of floods before they occur. Additionally, the “Joint Hazard Estimation of the Federal States (Laender) and the Federal Government” therefore aims to compile hazards (natural/technological/man-made) exceeding “day-to-day” hazards/crisis situations of national concern, as well as to identify risk hotspots, required additional/specialised capabilities, means/actions to decrease vulnerability and increase coping capability. This occurs through regular and event-driven updates and a yearly review of results, which is seen as the first step to a national risk map for the entire Federal Republic of Germany.

Since the Federal States (Laender) are responsible for disaster management, these assessments are organized and developed independently of each other, resulting in some challenges for an extensive analysis of both the local and national levels. For example, the institutions responsible for fire prevention (land/forest owners, forest management services) and fire response (ministries for the interior, fire services at the level of the communities) are aware of the general current wildfire hazard and its potential increase as a consequence of climate change. However, besides the general awareness that specific tree species/forest types bear a high wildfire risk (e.g., pine forests), systematic risk assessment databases and vulnerability information regarding fires are lacking. Since responsibilities for fire management (prevention and suppression responsibilities) are divided between different agencies and land owners, a systematic approach for joint inter-agency methodology and procedures for wildfire risk and vulnerability assessment

is required and has been initiated by the DWD and the “Global Fire Monitoring Centre” (GFMC: see link).

As for international co-operation, the technical solutions for early warning systems often ignore the communication lines to those communities most affected by the disasters - warning systems, including dissemination and communication of information, need more attention from donor agencies and political decision makers, as seen from the perspective of German agencies. UNU-EHS is currently preparing a report on vulnerability indicators together with the BBK and the “German Aerospace Center” (DLR: see link).

The German development cooperation recognizes the integration of climate change risks into risk assessments as one of the largest challenges because data for the local level is lacking, among other examples.

Italy (in English)

Level of Progress achieved:

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

Risk assessments concerning all main hazards are conducted at the National, Regional and Local levels. These activities are carried out according to risk maps updated continuously in order to maintain a thorough knowledge of the distribution, over the whole National territory, of risks and vulnerability. The responsibility to ensure that risk maps and risk assessments are up-to-date relies primarily upon the lower level of the system as municipalities have a better knowledge of the territory.

Context & Constraints:

The main future challenge in this sector is represented by the growing magnitude of disasters occurring countrywide. Climate change is modifying the relation between the communities and their territories. This problem is complicated by the presence of human settlements and activities even in remote and/or dangerous areas, as small communities often do not have the necessary skills and assets to carry out effective risk assessments.

Macedonia, The former Yugoslav Rep of (in English)

Level of Progress achieved:

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

The risk areas have been identified in the Spatial plan of the Republic, passed by the Parliament and made available. Within the crisis management system, the Assessment Group(AG) is responsible for the risk assessment. The Group forwards its analysis, recommendations and conclusions to the Steering Committee, the Presidents of the Government, the Republic and Parliament. CMC provides the professional and administrative support to AG in the assessment and updating processes. On local and regional level, the Regional CMCs contribute to CMS.

Achievement has been made by CMC in fostering the risk assessment availability by setting networks that deal with specific risks and hazards. For instance, CMC is setting a National Laboratory Network (hereafter: NLN) linking universities, healthcare and other public and private institutions that will address diseases and epidemics related hazards.

Furthermore, CMC is in the process of setting a disaster management center of excellence (hereafter: DMCoE) with nineteen focal areas concentrating on expertise and research projects as well as educational programs, providing robust expert support, thus producing timely and reliable risk and hazard data and making it more accessible to the key sectors.

CMC is presently working on the implementation of the Geographic information system (hereafter: GIS) network that would enable spatial positioning and predicting possible hazard scenarios.

Finally, the network of inspectorates will provide a coordinated and more efficient approach towards risk and disaster related issues.

The Ministry of Environment and Physical Planning established a River Monitoring System and Air Monitoring System. Also, periodical and ad-hoc inspectoral control of potential polluters and specific, risk-prone industrial capacities and installations, potential sources of industrial accidents. All relevant data is disseminated and shared with CMC, RPD, Hydrometeorological Agency and the Health Protection Agency.

Context & Constraints:

In order to improve the CMS institutions organization and introduce good practices in the crisis management process, CMC is establishing a coordinating committee for the implementation of the ISO/PAS 22399. Also, CMC considers acquiring a DSS will be acquired to improve and assist the crisis management decision making process.

CMS data assessment methodology is not fully developed.

In order to develop a more coordinated approach to crisis management, CMC will form and coordinate intersectoral working group, aiming to develop a methodological framework for: (1) reconstruction of hazards; (2) determining the causes and damages of hazards and disasters; (3) complex estimations on the direct, indirect and postponed disaster consequences.

Another inter-sectoral working group will develop methodologies for: (1) evaluating the risks and hazards; (2) developing of possible risk and disaster scenarios; (3) making plans for dealing with risks and hazards; and, (4) determining the CMS stakeholders SOPs.

Montenegro (in English)

Level of Progress achieved:

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

Within the Sector for Emergency Management an organizational unit was established to manage risks and to create a data base on elements at risk. With support from DEMA , we developed the software which will enable a good-quality access to these information. We also adopted two significant documents: the Methodology for Evaluation of Threats and the Methodology for Developing Action Plans.

Context & Constraints:

The main challenge was the lack of any data base at the level of the State as well as lack of documents that could be used in order to conduct the evaluation of threats.

Norway (in English)

Level of Progress achieved:

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

At national level every year the Norwegian Directorate for civil protection and emergency planning (DSB) is conducting and publicizing The national vulnerability and preparedness analysis. On local level 96% have conducted local risk and vulnerability analysis the latest four years.

Analyses and investigation studies are vital activities to gain an overview of which preventive measures should be given priority. The Protection of society-project (BAS) at the Norwegian Defence Research Establishment and DSB's annual National Vulnerability and Preparedness Report are such examples. The analyses are cross-sectoral and identifies vulnerabilities in the society in general and in the different sectors.

Context & Constraints:

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Serbia (in English)**Level of Progress achieved:**

3 - Institutional commitment attained, but achievements are neither comprehensive nor substantial

Description:

Protection and Rescue Sector has made risk assessments regarding floods, wild fires, landslides, accidents with hazardous materials, technical accident on roads

Context & Constraints:

There is a need of more efficient implementation of the Legal Acts which are adopted (the Law on Local Self Government). It is also necessary to build capacities in the human resource and material sectors, and to update the plans for disaster management.

Slovenia (in English)**Level of Progress achieved:**

5 - Comprehensive achievement with sustained commitment and capacities at all levels

Description:

Based on legislation, risk and threat assessments are done by the competent ministries (mostly the Ministry of the Environment and the Ministry of Defence - Administration for Civil Protection and Disaster Relief). They have to be updated every five years or after any major incident. Local communities are responsible for their own risk and threat assessments. Based on these assessments, national and local emergency response plans are prepared.

According to the plan, responsible authorities have in the period 2006-2008 prepared most of the required risk and threat assessments.

Context & Constraints:

Carry on with the work. Update all risk and threat assessments according to the legislation and planned programme.

Sweden (in English)

Level of Progress achieved:

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

Local level:

The Civil Protection Act demands the municipalities to develop programs for emergency prevention and emergency response. The municipalities are enforced, by law, to perform risk and vulnerability analysis. Detailed investigations, based on stability mappings and general flood inundation maps, are performed at the local level.

Regional level:

The county administrative boards supervises the programs and analysis. Risk and vulnerability analysis are compiled at the county level.

National level:

All authorities are commissioned to perform risk and vulnerability analysis within their area of responsibility.

The Swedish Rescue Services Agency (SRSA) supports the municipalities by collating statistics and providing data for risk analyses. The Swedish Centre for Learning from Incidents & Accidents (NCO), hosted within the SRSA, is a national resource for cross-sector cooperation surrounding the data and development of methods and systems for the prevention and analysis of incidents, accidents and other emergencies and the description of the consequences.

The Swedish Rescue Services Agency's work with stability mapping and general flood inundation maps continues for the remaining risk areas.

The Swedish Emergency Management Agency (SEMA) is responsible for co-ordinating the planning and for following up and evaluating the national emergency preparedness. From an emergency management perspective, some societal functions are more important than others. SEMA has produced criteria that help identify these functions. Criteria that govern preventive work are impact criteria and criteria that govern response are capability. Studies have also been conducted and critical infrastructure identified within different sectors regarding dependencies and the critical functions, essential assets, services and systems. Every year a report is compiled regarding the countries capability of emergency management and the progress of the work performed within the area.

The Swedish National Audit Office (SNAO) published in June 2008 a report on society's capability of handling drinking water supply in case of serious emergencies. The municipalities have the full responsibility for the drinking water supply and the awareness of emergency preparedness has increased over the last years, mainly due to the work performed by the National food administration. The report states that the municipality's ability to handle serious emergencies are limited. The drinking water supply faces a number of risks and some of them will increase due to the expected climate change.

The Swedish Geotechnical Institute (SGI) is a government agency dealing with geotechnical research, information and consultancy. SGI has particular responsibility as a governmental expert body for safety issues relating to landslides and coastal erosion. The institute publishes yearly a large number of reports related to different projects. In 2006 SGI published a report regarding natural hazards and climate change. The conclusion was that already today additional measures are required in order to reduce risks and prevent damages. The need for action will increase with the expected climate change.

The Swedish Environmental Protection Agency (EPA) and the Swedish Meteorological and Hydrological Institute (SMHI) are highly involved in climate studies and research. EPA's key tasks are to present proposals for environmental policy and legislation to the Swedish Government and ensure that environmental policy decisions are implemented. This will also impact the work related to disaster risk reduction.

Context & Constraints:

High attention is paid to climate change, risks and vulnerability at the national level. The regional and local level is however not yet fully prepared and equipped to address the issues with the same attention.

Risks related to natural hazards are not always visible in the programs and risk and vulnerability analysis. Existing knowledge (i.e. stability mappings, general flood inundation maps) is not always utilized at the municipality level due to low priority and limited resources.

Switzerland [\(in English\)](#)

Level of Progress achieved:

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

The cantons are responsible by law to ensure the adequate production of hazard maps for all kinds of natural hazards. Coverage is around half of the national territory; percentages depend on the type of hazard: avalanche hazard maps have far greater coverage than landslide hazard maps. However, most "hot spots" (dangerous or high-risk areas) have been covered.

Context & Constraints:

The aim is to cover the whole country with hazard maps and assessments by 2011, for both geological and hydrological hazards, and have them applied in land use planning, especially for construction permit deliveries by municipalities.

Turkey [\(in English\)](#)

Level of Progress achieved:

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

There are different scaled hazard/susceptibility maps prepared for Turkey at national level. One of them is the National Seismic Zoning Map of Turkey. The last seismic zoning map of Turkey (fifth in the history because of development in earthquake science) was prepared in 1996 by using peak ground acceleration contour map that was constructed base on probabilistic method. This zoning map is also available at local level in order give a basic understanding of the seismicity of a specific area. By taking the advantage of geographical information systems, this map can be analyzed both regionally and locally. There is also maps showing the distribution of landslide, rockfall and snow-avalanche affected residential areas at national level. Active fault map is another important input map for seismic analysis and prepared at national level by G.D. Mineral Research and Exploration (MTA). Landslide inventory mapping is also being performed by the same directorate and assumed to be concluded in the near future. G.D of State Hydraulic Works collect the data on floods at national level and published it with annual bulletins. National scaled forest fire susceptibility maps are prepared by G.D. Forestry of Ministry of Environment and can easily be accessed from internet.

In addition to national hazard data, there are lots of studies executed at local and regional level in order to evaluate hazard and vulnerability assessment. G.D. Disaster Affairs has started a regional multi-hazard and risk mapping project in 2000 in NW Black Sea region and studies are concluded in 3 main districts in the region. Within this pilot project hazard and vulnerability of whole districts are investigated, vulnerability of key sectors like governmental buildings, factories etc. are also investigated and for some disaster types hazard maps are prepared by using GIS and remote sensing technologies. Another study in this field is executed by Istanbul Metropolitan Municipality with the assistance of JICA in Istanbul where

multi-disciplinary and detailed micro-zonation maps were prepared.

Some municipalities have prepared disaster recovery plans and those include hazard and vulnerability data, especially vulnerability of critical structures to disaster at multi-hazard approach. Istanbul Metropolitan Municipality has prepared those datasets mainly for whole city.

Disaster Risk Indication study is another local project implemented by Istanbul Metropolitan Municipality (IMM). IMM works together with Earthquake and Megacities Initiative (EMI), Centre for Disaster Management and Risk Reduction Technologies, University of Karlsruhe (CEDIM) and Bogazici University. Within the scope of this study physical vulnerability, social vulnerability and disaster response capability of Istanbul against to a catastrophic earthquake is investigated. Response capability and current preparedness background of the city will be rated.

Standardization of data production, data usage is an important factor and must be promoted at all levels. This will also contribute to rapid response to disasters and minimize disaster related loss of lives.

Context & Constraints:

Preparation of hazard and risk maps at national level is difficult for some specific disaster types like landslides, rockfalls etc.

After 1999 earthquakes the municipalities located on 1st and 2nd degree earthquake zones are obliged to prepare and/or revise their micro-zonation maps based on multi-hazard approach. However this application has not become prevalent for all municipalities and also for residential areas.

Multi-stakeholder participation amongst the relevant institutions is a key factor in preparation of national level risk and vulnerability mapping and data collection. In addition to these academic units, local administration may play an important role in this process.

United Kingdom (in English)

Level of Progress achieved:

5 - Comprehensive achievement with sustained commitment and capacities at all levels

Description:

The UK Government has published a National Risk Register which sets out the assessment of the likelihood and potential impact of a range of different risks that may directly affect the UK.

The National Risk Register is designed to increase awareness of the kinds of risks the UK faces, and encourage individuals and organisations to think about their own preparedness. The register also includes details of what the Government and emergency services are doing to prepare for emergencies. The risks are divided into three main areas, natural events, major accidents and malicious attacks.

Community Risk Registers currently consider the likelihood and potential impact of a range of hazards occurring in specific areas of England and Wales.

They are approved and published by Local Resilience Forums (LRFs) which have been established under the Civil Contingencies Act. They include representatives from local emergency services, and public, private and voluntary organisations. In order to produce the Community Risk Registers, LRFs use a combination of their own judgement about each risk, as well as guidance provided by central government drawn from the National Risk Assessment.

Context & Constraints:

Public response to these documents has been generally quiet, although several people have written in suggesting areas that have been missed; e.g. earthquake, landslip etc. These risks do not meet the criteria

necessary to make the register.

Oceania

Australia (in English)

Level of Progress achieved:

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

The Natural Disaster Mitigation Program (NDMP) was established in 2003 04 and aims to create safer, sustainable communities better able to withstand the effects of floods, storms, bushfires and other rapid onset natural disasters. Projects that qualify for funding include natural disaster risk management studies, construction of flood levees and early warning systems.

The National Hazard Impacts Program (NHIP) supports reform commitments set out in the 2003 COAG review "Natural Disasters in Australia: Reforming mitigation, relief and recovery" to implement a national programme of systematic and rigorous disaster risk assessments, and contribute to the development of a nationally consistent approach to data collection, research and analysis to ensure a sound knowledge base on natural disasters and mitigation.

As part of the Disaster Mitigation Australia Package (DMAP), NHIP has the lead role in developing models, tools and data to support a National Risk Assessment Framework for natural hazards. NHIP's research requires the development and integration of scientific results across several technical disciplines and for a diverse range of hazards. The primary focus is on earthquake, severe wind (including tropical cyclone) and tsunami in Australia, with additional advice and data integration for landslide, flood and bushfire hazards.

The Australian Government is developing a risk assessment 'toolkit': an online resource that will provide a range of risk information including reports, hazard and exposure data, models and maps to support best-practice risk assessments across Australia.

Context & Constraints:

A challenge for the future may be the need for all stakeholders to balance conflicting priorities and advice with demands for limited resources

Marshall Islands (in English)

Level of Progress achieved:

2 - Some progress, but without systematic policy and/ or institutional commitment

Description:

1. Ecological assessment of proposed Majuro lagoon rim aggregate dredging
2. Water quality monitoring. RMI Environmental Protection Agency has EPA certified laboratory
3. Regional Coordination of Pacific Islands GOOS (Global Ocean Observing System) in the SOPAC Region.
4. South Pacific Sea Level and Climate Monitoring Project [Phase IV] Support.
5. Improve access to freshwater through the provisions of rainwater tanks, expanded runway catchment, and maintained reticulation system

Context & Constraints:

- Increasing migration to Majuro and Ebeye
- Unplanned and highly congested living conditions
- Poor waste management and sanitation provisions

- Poor education system
 - Adoption of western diet and lifestyle
 - Shortages of skilled health personnel
-

New Zealand (in English)

Level of Progress achieved:

4 - Substantial achievement attained but with recognized limitations in key aspects, such as financial resources and/ or operational capacities

Description:

The Officials' Committee for Domestic & External Security Coordination has published the National Hazardscape Report (2007), based on contributions from agencies addressing hazard risk. The report provides a contemporary summary of the physical nature, impacts, distribution and frequency of occurrence of the seventeen key hazards affecting New Zealand. These include geological, meteorological, biological, technological and infrastructure failure hazards. It also provides general information on the current management of hazards, though focusing on reduction and readiness initiatives. The report is to be updated every three years.

http://www.civildefence.govt.nz/memwebsite07.nsf/wpg_URL/For-the-CDEM-Sector-Publications-National-Hazardscape-Report?OpenDocument

The National Hazardscape Report assists with identifying and assessing hazards and risks to be addressed through national policies and plans, and the relevant legislative frameworks. More precise risk assessments are carried out as part of these processes.

Local authorities undertake hazard and risk assessment as part of their risk management processes in environmental planning and developing Civil Defence Emergency Management Group plans.

The Climate Change Plan of Action programme provides for significant investment in research and development into helping land-based sectors adapt to climate change. This includes research into modelling and methodologies to enhance the land-based sectors evidential basis for risk management with regard to climate change.

Context & Constraints:

Challenges include improving ability to assess the full range of consequences and vulnerabilities, especially in regard to secondary impacts, undertaking comparative economic analyses and assessing non-monetary (social & environmental) costs.

Other challenges concern improving understanding of inter-dependencies across sectors, and overcoming commercial sensitivity that may limit disclosure by private entities in some circumstances.

Vanuatu (in English)

Level of Progress achieved:

2 - Some progress, but without systematic policy and/ or institutional commitment

Description:

The Draft Vanuatu National Disaster Risk Reduction and Disaster Management Arrangements, 2008 (NDRRDMA) highlight common examples of risk reduction measures. These measures range from the analysis of the hazards, to capacity building, appropriate policies and plans, its application to appropriate early warning systems. The NDRRDM arrangements charge the National Disaster Risk Management Office (NDRMO) with the coordination and development of a "risk reduction plan" whose purpose is to identify and monitor priorities for risk reduction and allocate responsibilities to key agencies for the implementation of the mitigation programmes consistent with national policies and priorities endorsed by the National Disaster Risk Management Council and approved by the council of Ministers. The National

Risk Reduction Arrangements obligate risk reduction planning process to take note of reducing underlying risks outlined in the Priorities Action Agenda (2005 - 2016), the DRR and DM NAP, appropriate adaptation measures to deal with emerging risks associated with climate change and climate variability, the application of risk management tools such as CHARM and modern technologies such as GIS and remote sensing. In addition to the DRM arrangements, the NAP outlines key actions for sectoral responsibility in incorporating risk reduction measures which already obligates the sectors.

a. The Ministry of Lands is currently developing a Land-Use management policy for developers to conduct full risk assessments before development is approved. For risk assessments, the Comprehensive Hazards and Risk Management (CHARM) tool is being introduced for use.

b. The Vanuatu Meteorology Services (VMS) climate change adaptation programmes has assessed for the vulnerable areas around Vanuatu. This has resulted in the current relocation of Tekua community to higher grounds and rainwater catchments for the communities of Pamma, Aniwa and Tongoa. In addition, the VMS has in place assessment tools for El-nino and La Nina.

Context & Constraints:

One of the current limitations on national risk assessment tools such as CHARM, is the lack of capacity to use such. The NDRMO has identified the need to train personal across the sectors in the use and application of CHARM. In addition, under their new disaster risk management arrangements and national action plan, hazards and risk management personnel has been established within the NDRMO.
