

Compilation of National Progress Reports on the implementation of the Hyogo Framework for Action (2009-2011)

HFA Priority 4, core indicator 4.4:

Planning and management of human settlements incorporate disaster risk reduction elements, including enforcement of building codes.

Know the Risks and Take Action

Reporting period: 2009-2011
Country information as of 18 Aug 2011 (for internal use only)

This report compiles inputs by Hyogo Framework for Action (HFA) priority for action 4.4 from 86 countries' final national HFA progress reports in order to better facilitate analysis and provide examples by priority and region. Inputs are provided in their original reporting language.

Note that these extracts are provided for convenience only and that national HFA progress reports should be considered in their entirety. To view them, visit:

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

An HFA Monitor update published by PreventionWeb

Africa

Algeria (in French)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * Yes: Provision of safe land for low income households and communities

Description:

Les dispositions législatives en matière d'aménagement et d'urbanisme interdisent formellement ou limitent fortement toute construction en site présentant un aléa.

La réglementation sur les installations classées pour la protection de l'environnement rend obligatoire des études d'impact ainsi que les études de danger préalables à l'élaboration des plans internes et particuliers d'intervention en réponse aux catastrophes. Ces études et la réalisation des investissements et installations concernés effectués par les différents secteurs font appel aux normes et standards de conception, de construction et d'exploitation les plus rigoureux et universellement admis.

- Dans le secteur de l'eau des mesures techniques et structurales (digues et autres) ont été prises pour réduire la vulnérabilité de certaines zones aux catastrophes.

- Dans le contexte de l'aléa feux de forêts, il est recommandé aux habitants enclavés de dégarnir de toute végétation les alentours de leurs habitations sur un rayon de plus de 20 mètres.

- Dans le secteur des travaux publics, les études des projets intègrent les données de plusieurs aléas environnementaux. Le règlement parasismique des ouvrages d'art qui sera suivi d'un guide technique de renforcement des ouvrages existants dont l'étude sera lancée en 2011.

Pour l'aléa « glissements de terrains », il est prévu de lancer en 2011, une étude d'évaluation de l'instabilité dans sept Wilayas permettant d'arrêter des solutions de confortement.

- Dans le secteur de l'énergie, des projets de décret qui traitent de la question des périmètres de protection des installations d'hydrocarbures sont en cours d'élaboration. Toutes les installations du secteur l'énergie et des mines avant leur démarrage donnent lieu à des tests sur les équipements, effectués par le Ministère de l'Énergie et des Mines et ses agences.

Context & Constraints:

Le principal défi en la matière réside dans l'amélioration significative du respect des prescriptions et règles de construction et de sécurité industrielle, ainsi que des prescriptions liées à la protection de l'environnement. Ceci pourra être obtenu progressivement par la démultiplication des actions de formation des intervenants et d'organisation des différentes professions concernées, ainsi que par une plus large éducation et sensibilisation du public. Il s'agira également de lever ou d'atténuer certaines contraintes matérielles ou réglementaires. Dans ce cadre on peut citer à titre d'exemple :

- la nécessité de systématiser la confection de tournières autour des habitations enclavées en forêt et

doter ces populations en matériel de première intervention (pelles, pioches, bannes, citernes d'eau, sautoirs-pompes, etc....) contre les incendies de forêt.

- la nécessité de mettre en place un système qui gère les cas d'empiètement de périmètre de protection des installations sensibles et les cas de délocalisation, et ce, par la mise en place d'une institution spécifique.

Botswana (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

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- * Yes: Investment in drainage infrastructure in flood prone areas
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- * Yes: Provision of safe land for low income households and communities

Description:

The Land board, is the authority which allocates the land to the people for housing and livelihood. The Land Board has the policy to not allocate the land to the people in the flood prone areas.

Context & Constraints:

In absence of any specific law which can deter the public to build their houses in the flood plains, often people ignore the recommendations of the land board and build their structures in to the flood prone areas.

Burundi (in French)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

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Means of Verification:

- * No: Investment in drainage infrastructure in flood prone areas
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- * Yes: Training of masons on safe construction technology

* Yes: Provision of safe land for low income households and communities

Description:

- Le Gouvernement consent des efforts dans la stabilisation des berges des rivières traversant la capitale et le tracage des lits de ces rivières;
- Des schémas d'aménagement du territoire sont en place

Context & Constraints:

- Manque de fonds suffisants d'investissements pour la réduction des risques dans les zones urbaines vulnérables;
 - La Protection Civile n'a pas encore eu le droit de délivrer les certificats de construction, refusant ainsi les constructions dans les zones à risques et exigeant aussi le suivi des normes standards de construction.
-

Cape Verde (in Spanish)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

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Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology
- * Yes: Provision of safe land for low income households and communities

Description:

Em todos os centros urbanos de Cabo Verde tem aumentado as construções precárias em zonas consideradas de risco, nomeadamente, no leito das ribeiras e nas encostas com declive acentuado. Com o aumento da densidade populacional nestas áreas, e tratando de zonas onde geralmente habitam a população mais vulnerável, o risco tem aumentado nestas áreas.

Este tema tem sido muito debatido em todos os níveis na nossa sociedade, visto inspirarem alguma preocupação, pela forma como estas ocupações têm crescido rapidamente e cada vez ocupando áreas mais perigosas.

O Governo para resolver parte deste problema, criou o programa “casa para todos” e o programa “reabilitar” que têm como meta o realojamento de populações que habitam áreas de risco, reabilitação de algumas moradias com baixas condições de habitabilidade. A nível local as Câmaras têm criado programas de reabilitação de casas, ordenar melhor o seu território e, está em curso e algumas Câmaras já apresentaram, Plano Director Municipal que é um instrumento fundamental de gestão do território e com implicações directas em RRD.

Nos últimos anos foram apresentados alguns projectos/programas de reabilitação e construção de bairros degradados. Algumas medidas estruturais têm sido levadas a cabo, como por exemplo, drenagem de algumas áreas propensas a inundação, estabilização de taludes.

Em Cabo Verde existem códigos de construção para garantir a qualidade na execução das obras. Mas é reconhecido que a qualidade da construção não é a melhor, por causa da fiscalização que é muito fraca, e também por causa da falta de formação de muitos construtores.

Context & Constraints:

Para alcançar este objectivo comum que é a RRD, será necessária formação e capacitação em técnicas de construção seguras, investir em materiais mais seguros de construção, fomentar a fiscalização das obras a todos os níveis.

Os projecto e programas de requalificação e RRD, muitas vezes requerem somas muito avultadas, e muitas vezes não conseguem financiamento a 100%, e isso pode comprometer a real RRD.

Comoros (in French)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

-- Nothing reported within this timeframe. --

Means of Verification:

- * No: Investment in drainage infrastructure in flood prone areas
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- * No: Provision of safe land for low income households and communities

Description:

Plusieurs projets ont été menés au niveau communautaire, principalement pour limiter les risques d'inondation ou de submersion marine (digue de Domoni à Mohéli, digue de Foubouni en Grande Comores, reboisement dans le parc marin de Mohéli, etc.).

En terme de normes de construction, peu de progrès : les normes (standards) ne sont pas appliquées partout, et devraient être diffusées plus largement.

Context & Constraints:

La réduction du risque n'est pas prise en compte systématiquement dans les investissements publics et dépendent majoritairement de l'aide extérieure (Commission européenne, coopération française, diaspora, etc.).

Cote d'Ivoire (in French)

Level of Progress achieved:

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

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Description:

La planification et la gestion des établissements humains intègrent très peu des éléments de réduction du risque. En effet, la grande expansion des habitats humains et l'insuffisance d'infrastructures d'assainissement dans les grandes agglomérations, la pratique de l'agriculture extensive ainsi que l'anarchie qui caractérise l'utilisation des espaces (pour l'habitat et l'agriculture) dans certains cas, sont de nature à augmenter les risques.

Context & Constraints:

Un des problèmes rencontrés dans la planification et la gestion des établissements humains est celui de l'installation des populations déshéritées (majoritaires) dont le nombre continue de croître avec le coût élevé de la vie. Pour réduire la vulnérabilité des populations et de l'environnement, la planification et la gestion des établissements humains doivent nécessairement intégrer des éléments de réduction du risque, notamment, la gestion rationnelle des espaces et la prise en compte des normes de construction.

Ghana (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

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Description:

The existing building regulations are not strictly adhered to. Estate private developers and individuals also flout the building regulations by putting up buildings without cognisance of the identified and publicised hazards and good engineering practices.

Context & Constraints:

Real Estate developers - both public and governmental have the idea that natural disasters such as earthquakes are not highly probable in the country. Even some modern planned settlements lack designated safe havens, properly managed refuse disposal and therefore poor sanitation. Some private constructions are going on along hill slopes that are susceptible to landslides.

High-rise building also do not have risk reduction elements such as helipads on the highest floors and efficient smoke detectors and alarm systems.

Guinea-Bissau (in French)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

No

Means of Verification:

* No: Investment in drainage infrastructure in flood prone areas

* No: Slope stabilisation in landslide prone areas

* No: Training of masons on safe construction technology

* No: Provision of safe land for low income households and communities

Description:

pas de cadre institutionnel

Context & Constraints:

Pays en voie de développement et membre des PIED, la Guinée Bissau fait partie du groupe moins avancés(PMA), avec un PIB par habitant estimé en 2008 à 590 \$USD et un taux de croissance réel du PIB de 3,2%. D'après le Rapport Mondial sur le Développement Humain Durable des Nations Unies (2009), le pays occupe le 173 eme rang sur un total 182 pays, avec un Indice de Développement Humain (IHD) de 0,396.

Kenya (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

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Description:

Disaster risk reduction has been incorporated in planning and management of human settlement especially the housing programmes of upgrading the slum areas like KIBERA AND MAJENGO estates. There has been investment in flood prone areas by strengthening the dykes, the construction of dams to contain water upstreams and early warning systems enhanced through provision of radios with local dialect.

Context & Constraints:

The enforcement of building codes has been a challenge, as the country lacks adequate skilled personnel in this area, the upgrading programme is slow due to lack of funds.

Lesotho (in English)

Level of Progress achieved:

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

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- * No: Provision of safe land for low income households and communities

Description:

Not enough sensitization to relevant ministries and departments to incorporate DRR in their plans and policies.

Context & Constraints:

Lack of financial resources to enforce the prescribed building standards and to correct the existing once by maybe relocation.

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

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

Is there investment to reduce the risk of vulnerable urban settlements?

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- * No: Investment in drainage infrastructure in flood prone areas
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Description:

La planification et la gestion des implantations humaines conformément aux éléments de RRC sont restées au stade de discours. Sur le terrain, les installations humaines dans les zones à risques sont encore nombreuses à Madagascar sans interdiction des autorités nationales.

Context & Constraints:

La pauvreté et le chômage que subissent les populations font qu'elles s'établissent et s'installent dans des zones à risques (près des fleuves, dans des zones inondables...). Les autorités nationales semblent être impuissantes face à cette situation car n'ont pas non plus les moyens de reloger ces populations et d'offrir des moyens de subsistance leur permettant de vivre ailleurs.

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

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

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Description:

Currently, there is no policy framework for human settlements especially for the rural setting. While building codes exist (in draft form) for buildings in towns, they don't exist for houses in the villages where most of the disasters occur. Development of a settlement policy framework is one of the activities to be undertaken under the UNDAF cluster work plan for 2009. The development of the policy framework will increase the likelihood that DRR will be incorporated in designing human settlements.

Context & Constraints:

Poverty of most people in the rural areas results in their constructing weak houses which are usually damaged when affected by disasters. There is need for these people to be empowered economically.

Mauritius (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

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Means of Verification:

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Description:

Generally human settlements do take into consideration disaster risk reduction elements. But, in the absence of proper legislation, there are some human settlements in vulnerable areas, namely in landslide and flood prone areas.

Building codes have not been systematically enforced with the result that a few buildings in coastal regions are in the beach within the high water marks.

Context & Constraints:

Relevant policies need to be promulgated to encourage disaster risk reduction.

Morocco (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

Is there investment to reduce the risk of vulnerable urban settlements?

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- * Yes: Provision of safe land for low income households and communities

Description:

Le Département de l'Urbanisme, de l'Architecture et de l'Aménagement du Territoire développe actuellement une stratégie de prévention des risques en relation avec l'urbanisation et l'aménagement de l'espace, et vise deux objectifs majeurs :

- Garantir en priorité la sécurité des personnes et assurer la protection des biens et des équipements collectifs ;

- Intégrer les risques naturels dans les choix d'investissement et d'aménagement.

En matière de gestion des risques naturels, ce Département a entamé une nouvelle expérience dont l'objectif est d'acquérir une connaissance réelle et approfondie des risques naturels.

En matière de Gestion des risques technologiques, ce Département, en partenariat avec d'autres Départements ministériels concernés, est engagé dans une stratégie globale de renforcement de la sécurité et de prévention des risques dans les zones d'activités, à travers une mise à niveau du cadre juridique et réglementaire traitant ce sujet. La démarche adoptée dans le cadre de cette stratégie pilotée par le Ministère du Commerce, de l'Industrie et des Nouvelles Technologies, est:

- La consolidation de la réglementation en vigueur pour répondre aux besoins et aux défis à relever en la matière ;

- La détermination précise des responsabilités des différents intervenants;

- La simplification des procédures d'autorisation des projets industriels artisanaux, commerciaux et de services ;

- L'instauration d'un système de contrôle rigoureux de l'application de la réglementation en matière de prévention des risques ;

- La promotion de la culture de la responsabilité et de la sécurité dans les zones d'activités.

Context & Constraints:

- La lenteur pour l'élaboration des procédures de réglementations pour le respect des prescriptions et règles de construction,

- la nécessité d'organiser des sessions de formation et de sensibilisation au profit des acteurs concernés.

Mozambique (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

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Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
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- * Yes: Provision of safe land for low income households and communities

Description:

Since the launching of municipalities in 1998, planning and management of the largest urban settlements (33 cities and towns) has been decentralized to local municipalities. In 2009, more 10 towns become municipalities, increasing to 43 total numbers of municipalities. As more than 70% of urban population live in irregular settlements, attempts have been made to improve the living conditions of urban dwellers by providing more urbanized land and upgrading of existing slums. Examples of success are:

- The start of implementation of Maputo Development Plan (PROMAPUTO), which gives particular attention to roads and drainage improvement in the peripheral neighborhoods of Maputo city.

Achievements in Maputo city include:

- o Construction of new road and drainage system connecting Laulane to Costa do Sol neighborhoods;
- o Rehabilitation and upgrading of the drainage system and public transportation at Former Fighters Square (Praça dos Combatentes);
- o Improved road and drainage system at Mafalala and Polana Caniço 'A' neighborhoods, and under way urban upgrading at Maxaquene, some of the most crowded and unplanned neighborhoods in the Mozambican capital city;
- Completion of rehabilitation of the main drainage system in the Municipality of Beira, the second largest Mozambican city with 431,583 people;
- Allocation of plots of land in expansion areas in all cities, of Matola and Nampula cities, the Mozambican most fast growing cities over the last decade;
- Underway the slope stabilization program at Changara town, in Tete Province;
- Expansion of electricity and water supply networks to all suburbs of the 43 municipalities and other towns, and reduction of bills for poor families;
- Allocation of 47 000 plots of urbanized land and promotion of construction of 18000 houses are planned by Government for 2011, an initiative ever seen over the last 35 years.

Context & Constraints:

Access to improved housing and urbanized land in Mozambican cities has been slow when compared to the demand. In reality, formal and social housing market does not exist. As a result:

- More than 70% of urban homes are self-built, often on unplanned and illegal settlements, without basic infrastructures such as roads, electricity, water and sanitation.
- Even when risk awareness is high among urban dwellers, high poverty levels limit their choice to purchase safe but very expensive land or the few existing modern houses.
- Unskilled masons are often hired by interested families to build homes. As general rule, self-built homes are built without any permission by local municipalities.
- Illegal occupations of urban land are often promoted by municipality officials through corruption schemes.

Therefore, more political commitment is needed from municipalities to change the prevalent chaotic situation of Mozambican cities, by:

- Promoting rapid land use planning of urban expansion areas in anticipation to illegal land squatting by current occupants, mainly peri-urban farmers, as part of the implementation of Land Use Planning Law, approved in 2007
- Implementing a comprehensive urban upgrading of existing degraded slums
- Reinforcement of urban legislation and regulation on housing construction
- Promotion of creation of small building companies, including professional training for respective masons on safe construction technologies and regulations.

For instance, the HFA local dialogue held by UNISDR/Civil Society/ INGC in the district of Buzi recommended the need for the sensitization of local communities not to build houses over drainage systems.

Nigeria (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

Is there investment to reduce the risk of vulnerable urban settlements?

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Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
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- * Yes: Provision of safe land for low income households and communities

Description:

There is a lot of development in the coastal areas to relocate people from vulnerable areas and protect the coastal environment.

There is also the provision of land low income houses in many of the urban centres in Nigeria. Slums dwellers are also being removed from vulnerable areas to safer environment.

Context & Constraints:

Some of the low cost houses built have been acquired by the rich because the low income earners could not secure mortgage to purchase those houses.

Senegal (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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * Yes: Provision of safe land for low income households and communities

Description:

Au Sénégal on a le Plan national d'action de lutte contre les inondations, Le plan "Jaxaay" pour la construction des logements sociaux initié par le président de la République et destiné aux victimes des inondations dans les zones inondables

Context & Constraints:

Demande plus forte que l'offre, persistance des inondations, moyens financiers insuffisants, résistance de quelques couches à regagner les espaces aménagés

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

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Description:

There is the national office in charge of town and city planning and a department responsible for issuance of building permits and ensuring that building codes and regulations are respected. regulations. However, the enforcement of the laws governing the operations of these offices is very minimal if any at all. After the civil conflict the city and other provincial and district headquarters experience a surge in population figures

resulting in an increasing number of slums, particularly so in the western area.

In addition, there has been an increasing demand with the same plots of land, settlements sprung in areas not fit for human settlement. Humber of settlements built in disaster/hazard-prone areas across the country. However, government has recently established a Advisory Committee for the Freetown Resettlement Plan'. This committee comprises of key stakeholders, including the DM Department , Local government councils, to ensure that DRR considerations are given a priority as we embark on such developmental plans.

Context & Constraints:

Many of the laws are outdated and the ones that are amended are not enforced, thus the need to review the old laws and enforce the new ones to ensure that the associated risks within human settlements are minimal.

Tanzania, United Rep of (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

-- Nothing reported within this timeframe. --

Means of Verification:

- * No: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

There are various Policies, Laws and Regulations that regulate development of human settlements. Engineering Registration Board, Architectural and Quantity Surveyor Registration Board are there to ensure all professional personnel are well knowledgeable and town plans are in compliance with building codes.

Context & Constraints:

There is lack of human resources in land and construction sectors to ensure land planning and building codes are bound. Poverty and lack of knowledge on land law also lead to misconduct and breach of rules as poor people cannot access surveyed land.

Zambia (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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

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Description:

Laws and bi-laws governing planning and management of human settlement incorporate aspects of Disaster risk reduction. Enforcement of building codes at national and district levels are weak. Enforcement of building codes from local authority is weak.

Context & Constraints:

Local authorities do not have sufficient funds to monitor and enforce building codes.

Americas

Anguilla (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

Is there investment to reduce the risk of vulnerable urban settlements?

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Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
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Description:

The addition of the Director Disaster Management on the Land Development Control Committee greatly enhanced the understanding of settlement and location issues as well as giving a voice to climate change and mitigation of risk to environment.

Although Building codes are available they are not enforceable in their current form. The DDM also sits on the National Technical Sub Committee who, via CDEMA and CROSQ are working towards model building codes taking into account seismic as well as CUBIC.

Minimum standards for housing have been defined by the Public Health and Safety Working Group.

Context & Constraints:

Land Ownership in Anguilla is an emotive topic with much resistance to the enforcement of building standards and setbacks which in turn becomes a political issue, progress is slowly being made towards the implementation of Land Use Legislation. There are no utilities right of ways which is currently an issue being studied by the LDCC and the Essential Services Sub Committee.

Very significant investment required to mitigate the flooding issues with the Valley areas especially being the center of economic activity in Anguilla.

Antigua and Barbuda (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

No

Means of Verification:

- * No: Investment in drainage infrastructure in flood prone areas
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- * No: Provision of safe land for low income households and communities

Description:

The development control authority is responsible for the policing and enforcement of development standards. Antigua and Barbuda is presently reviewing for the second time, a Land Use Plan that was not implemented when it was first developed in the 1980s.

Very limited Slope stabilisation in landslide prone areas is practiced in Antigua and Barbuda, this is because up until recently Landslides was not an issue

Some training of artisans has taken place, however, this needs to be formalized across the construction companies in a more sustained manner.

The issue of safe land for low income housing and building safer communities needs to be a development policy.

Context & Constraints:

A national development plan with clear policies will address this matter.

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

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

Is there investment to reduce the risk of vulnerable urban settlements?

-- Nothing reported within this timeframe. --

Means of Verification:

- * No: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

Los planes de vivienda social en el orden gubernamental y los planes impulsados por diversas ONGs,

como se nombrara anteriormente, contemplan en sus programas la implementación de códigos de construcción adaptados a las nuevas exigencias para la RRD.

Por otra parte, se ha presentado el Plan de Desarrollo Territorial con alcance nacional que involucra a los asentamientos humanos.

Discusiones sobre el uso del suelo y el derecho a la vivienda como un derecho humano, son constantes en los foros argentinos.

Context & Constraints:

El boom inmobiliario en la Argentina, ha implicado que no todas las construcciones (incluidas las de alto nivel económico) aplican criterios para que sean más seguros.

En ocasiones los indebidos controles (seguramente más en el orden masivo público) pueden derivar en efectos no deseados.

Por otro lado, es necesario incorporar en discusión con todos los actores la aceptación de tierras seguras.

Barbados (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

-- Nothing reported within this timeframe. --

Means of Verification:

* No: Investment in drainage infrastructure in flood prone areas

* No: Slope stabilisation in landslide prone areas

* No: Training of masons on safe construction technology

* No: Provision of safe land for low income households and communities

Description:

The Barbados Building Code has been completed for some time but has not yet been adopted by the Parliament. Notwithstanding, the elements of the Code have been widely disseminated and are being followed by developers on the island.

The system of technical review and permitting for development planning is very well established, with annual improvements made to the system to incorporate DRR strategies. The Town Planning Act and the National Physical Development Plan establishes the criteria for activities that constitute development, as well as major development for which an EIA process is triggered. Through a series of consultations with technical and scientific agencies, the Town and Country Development Planning Office grants permits to develop land in various ways. Where major land use changes or large residential or commercial centers are planned, the analytical review process is even more rigorous.

Context & Constraints:

There are a number of squatters living in less than acceptable circumstances with respect to disasters. Even though the planning legislation and policy makes full provision for dealing with this situation, the

political will to remove persons from vulnerable areas is not always strong.

A number of vulnerable settlements exist in flood-prone areas, whether by stormwater or coastal inundation, mainly because these settlements existed prior to planning laws and policies in-country. Some individual applications have been approved in vulnerable zones since the existence of the development control process as well, mainly because the Town Planning Act provides for ministerial override of planning decisions. While the reasons for this provision are clear (economic and social issues are also considered at the ministerial level, and not just environmental, land use and DRR issues) at times, decisions taken actually inadvertently increase the vulnerability of such development to hazards.

Recommendation

A strong recommendation is reiterated here. The proposed Hazard Mitigation Council to be chaired by the Chief Town Planner, head of the Town Planning Department should be established with a sense of urgency to provide a more robust analysis for decision makers of potential consequences of inappropriate location of settlements of any kind. These recommendations will also be based on the risk and vulnerability assessments to be conducted under the CRAMP project during the next five years.

Bolivia (in Spanish)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

El mejor ejemplo es el trabajo del Gobierno Municipal de La Paz y el de la Santísima Trinidad

Otro ejemplo es la Estabilización de laderas en zonas proclives a los aludes Gobierno Municipal de La Paz

Context & Constraints:

Lamentablemente aun no se han precisado en los diferentes proyectos de inversion publica el porcentaje que corresponde a la RRD

Brazil (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

Is there investment to reduce the risk of vulnerable urban settlements?

-- Nothing reported within this timeframe. --

Means of Verification:

- * No: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

1. Pressionar para que as ações do Programa de Aceleração do Crescimento (PAC) contemplem as áreas indicadas pelo plano municipal de redução de risco.
2. Contemplação da defesa civil pelo programa nacional de segurança com cidadania do governo federal.
3. Compatibilização entre a diretriz de regularização fundiária de interesse social, definida no Estatuto da Cidade e o objetivo de redução dos desastres estabelecido na Política Nacional de Defesa Civil.
4. Ampliação de incentivos à criação de Planos de Auxílios Mútuos (PAM) entre iniciativas privadas e órgãos governamentais, objetivando maior interação e melhores resultados em ações de emergência e incentivo a criação de Plano de Auxílio Intermunicipal (PAI) entre cidades pólo e cidades pequenas.
5. Ampliação de ações governamentais de socorro e assistência à saúde e psicossocial às populações atingidas por desastres, inclusive logística e recursos humanos, em consonância com as especificidades locais e territoriais e, em articulação com as demais políticas públicas de inserção sócio-econômica.
6. Incremento de diretrizes para orientar a elaboração de projetos na correção e prevenção da infra-estrutura urbana, centros e bairros com ênfase na defesa civil.
7. Garantia da inclusão de ações preventivas de defesa civil nos programas e projetos ambientais relacionados ao combate à desertificação, proteção dos rios e bacias hidrográficas, nascentes, mananciais e áreas degradadas, tratamento de resíduos sólidos resultantes das catástrofes, e de manutenção de micro e macro- drenagem, obras de proteção e recuperação de encostas e hidráulicas, para a segurança da população.

Context & Constraints:

Fomento pelos Governos Federal, Estadual, DF e Municipal a programas voltados à reconstrução e recuperação de casas para populações atingidas, de baixa renda, em articulação com os demais órgãos do governo e da sociedade.

British Virgin Islands (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

The VI's CDM policy aims "to develop a framework to integrate hazard risk reduction in development planning at all levels." To that end, the DDM serves as a member of the Planning Authority. This membership calls for monitoring and inspection of development applications and the revision of EIA reports. In addition, the DDM supports capacity building and implementation of enhanced tools for building code adherence and building authority enforcement. Currently, a proposal is being drafted for Cabinet's approval to proceed with a collaborative effort between the Public Works Department, the Town and Country Planning Department and the Department of Disaster Management to conduct a thorough review of Building Regulations, to improve code requirements in general, but specifically in regards to the seismic and fire code. Regulations to support Physical Planning Act and the Disaster Management Act are envisioned.

There is evidence of non-compliance with Building Regulations in the past, but efforts are now being made to rectify the situation with improved enforcement.

Context & Constraints:

Capacity is lacking in the area of building code enforcement.

Canada (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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * No: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

The National Building Code of Canada of 2005 sets out technical provisions for the design and construction of new buildings. It also applies to any alteration of existing buildings. The Code contains provisions related to fire protection, occupant safety and accessibility, structural design, environmental separation, heating, ventilating and air-conditioning, plumbing services and housing and small buildings. These guidelines help inform provincial and territorial legislation and enforcement.

While no current program exists for drainage infrastructure in flood prone areas, Canada has had an active DRR project in the Manitoba floodway. Originally completed in 1968, the floodway cost \$63 million. It has since saved Manitoba \$10 billion in flood damages. After a major flood in 1997, expansion of the floodway was recommended. Funding for this expansion is being shared equally by the Government of Canada and the Province of Manitoba to a total of \$665 million.

Natural Resources Canada (NRCan) scientists and engineers in the Earth Sciences Sector specialize in landslide studies and are engaged in a variety of activities individually, in partnership with provincial/territorial representatives and with academia, the private sector and other federal agencies to improve Canada's understanding of landslides and minimize the losses as part of the Canada Landslide Loss Reduction Program.

NRCan's Geological Survey of Canada (GSC) is developing a landslide susceptibility map which will provide a national scale reflection of diverse nature of landslide potential and therefore relative risk for the hazard. The public and general practitioners can use this information as a first approximation of landslide threat.

The GSC also has a responsibility to publish technical guidelines to encourage best practices for landslide mitigation aimed at practicing engineers and geo-professionals working on landslide issues in Canada. This nationally focused effort is being compiled with input from the private and provincial sectors.

Context & Constraints:

Climate change has the potential to impact the safety of existing structures, increase the frequency of weather-related disasters, accelerate premature weathering of structures, change climatic design criteria for codes and standards and alter engineering practices. With Canadian buildings and infrastructure assets valued at more than \$5.5 trillion and the construction sector accounting for a significant component of Canada's economy, the impacts from our changing climate will be significant, requiring adaptation solutions.

Since almost all of today's infrastructure has been designed using climatic design values derived from historical climate data, any changes in future climates will require modifications to how structures are engineered, maintained and operated. As infrastructure built in current times is intended to survive for decades to come, it is important that adaptation options for the changing climate be developed today and that future climate changes be incorporated into infrastructure design whenever possible.

In support of these adaptive approaches, Environment Canada and the Canadian Commission on Building and Fire Codes are updating and improving more than 6000 specific climatic design values used in the National Building Code of Canada and by many Canadian Standards Association national standards. Other research and development is targeting the development of new guidance on current and future climate conditions for incorporation into engineering practices and codes and standards.

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

The Cayman Islands Building Code (CIBC) mandates minimum health and safety standards for buildings. The CIBC deals with vulnerability reduction for hazards such as hurricanes (wind resistance), earthquakes and fire. Currently the (USA) Standard Building Code is also in operation. The Building Code is actively enforced and there is low incidence of 'informal' / squatting type settlement.

Context & Constraints:

The Planning Department produced a strategic plan concerned with climate change mitigation and adaptation. To date the plan has not been adopted by the Ministry or Cabinet of the Cayman Islands. The plan shows that the existing Cayman Islands Building Code does not adequately respond to the threat posed by climate change. Adaptation options that have been proposed (but not adopted) include elevating habitable space above expected storm surge / flood levels. The existing building code and planning regulations permits private landownership along the coast to extend to the high water mark. Coastal construction setbacks are arbitrary values that do not look at the specific hazard threats inherent to a geographical location. The building code mandates that new property is built to withstand category 3 hurricane conditions. Cayman is periodically impacted by category 4 and 5 cyclones so property remains vulnerable. It is currently considered cost prohibitive and a disincentive to future development to make the code sufficiently rigorous to meet or exceed the range of impacts to which the Cayman Islands is prone to experiencing.

Chile (in Spanish)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas

* Yes: Training of masons on safe construction technology

* No: Provision of safe land for low income households and communities

Description:

Chile tiene una normativa avanzada en sismo resistencia.

Las principales estructuras básicas del país soportaron un sismo magnitud 8,8 Richter, abarcando una distancia, comparativa, desde Panamá hasta Guatemala. A esta normativa se suma la nueva Ley 20.444 que crea el Fondo Nacional de Reconstrucción en caso de catástrofes.

La respuesta frente a la emergencia fue adecuada. El Gobierno dispuso subvenciones y bonos para los afectados y está actualmente en entrega de viviendas definitivas para los damnificados. El Ministerio de Vivienda ha liderado el proceso de reconstrucción.

En términos de reconstrucción, la participación del mundo civil y la empresa privada es fundamental. La Cámara Chilena de la Construcción es exigente en el cumplimiento de las normas mínimas y se preocupa por divulgar información relevante para la reducción del riesgo de desastres.

El Plan de Reconstrucción “Chile unido Reconstruye Mejor” incorpora en sus distintas acciones criterios homologables con los esperados por la Estrategia Internacional de Reducción del Riesgo de desastres. En otro ejemplo, la campaña solidaria “Chile Ayuda a Chile” , del 5 de marzo, fue capaz de recaudar en un día aproximadamente 60 millones de dólares que fueron en su mayoría invertidos, con la participación de la Fundación Un Techo Para Chile, en la construcción de aldeas de emergencia compuestas por viviendas básicas (conocidas en Chile como mediagua)

Context & Constraints:

El principal desafío, en términos de reconstrucción, consiste en incorporar a la construcción de asentamientos de emergencia, estándares internacionales como los desarrollados en Proyecto Esfera, donde se consideren aspectos psicosociales para evitar situaciones de vulneración de los derechos de la población y también evitar posibles dificultades sanitarias que deriven en una catástrofe.

Se debiera planificar previamente algunos aspectos de la reconstrucción, como por ejemplo, acuerdos con empresas del rubro para evitar la escasez y encarecimiento de los productos en caso de emergencias.

El establecimiento de los asentamientos humanos no debiera considerar los aspectos materiales. En la planificación de la emergencia se debería identificar el rol de los organismos no gubernamentales, de los líderes comunales y de las autoridades municipales para la recuperación emocional de las comunidades afectadas.

Colombia (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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

* Yes: Investment in drainage infrastructure in flood prone areas

* Yes: Slope stabilisation in landslide prone areas

* Yes: Training of masons on safe construction technology

* Yes: Provision of safe land for low income households and communities

Description:

Colombia en el desarrollo de la temática ha ido avanzando especialmente a través de la implementación de La Ley 388 de 1997 (Desarrollo Territorial), por la cual se desarrollan los Planes de Ordenamiento Territorial –POT-, en donde se especifican los determinantes de dichos Planes en la elaboración y adopción de sus POT. Los municipios y distritos deberán tener en cuenta las siguientes determinantes, que constituyen normas de superior jerarquía, en sus propios ámbitos de competencia, de acuerdo con la Constitución y las leyes:” “1. Las relacionadas con la conservación y protección del medio ambiente, los recursos naturales y la prevención de amenazas y riesgos naturales, así:... Las políticas, directrices y regulaciones sobre prevención de amenazas y riesgos naturales, el señalamiento y localización de las áreas de riesgo para asentamientos humanos, así como las estrategias de manejo de zonas expuestas a amenazas y riesgos naturales.”

Existen normas urbanísticas derivadas del Ordenamiento territorial que incluyen la gestión de riesgo. Se ha logrado interiorizar la utilidad del Ordenamiento Territorial (Usos del Suelo) y de la inclusión de la gestión de riesgo en el desarrollo municipal destacando la importancia para reducir la vulnerabilidad de las comunidades ante las amenazas gestionando un crecimiento urbano eficiente. De forma complementaria la Ley 388/97, insta a las municipalidades a liderar procesos de licenciamiento y control urbano tanto para las construcciones como del urbanismo que se va a desarrollar en los territorios.

De forma complementaria, es de destacar que el país cuenta con la Ley 400 de 1997, reglamentada por un gran número de decretos, por medio de la cual se adoptan normas sobre construcciones Sismo Resistentes y la norma NSR-10 del 2010 de Diseño y Construcción Sismo Resistente, a su vez se cuenta con el decreto 1275 de 2009, por el cual se reglamentan las disposiciones relativas a las licencias urbanísticas, normas que establecen los parámetros claros para los desarrollos futuros y adecuación de los existentes en materia de asentamientos humanos.

Context & Constraints:

Entre las limitaciones más importantes están la falta de control urbano y en el seguimiento en el cumplimiento de las disposiciones derivadas de los POT correlacionados con las normas urbanísticas y las zonas de expansión a nivel municipal. Lo anterior se agudiza, si se tiene claro que en el país su desarrollo urbano ha sido principalmente a través de la informalidad, aspecto que complejiza la toma de decisiones para la incorporación de elementos de la reducción del riesgo de desastres, entre ellos el cumplimiento de los códigos de construcción.

Entre los retos están:

Realizar la consolidación de las políticas de vivienda y desarrollo territorial a nivel nacional conducente a la promoción de la formalidad acompañada de una estrategia financiera contundente para la promoción del sector.

Realizar estrategias de revisión y ajustes de los Planes de Ordenamiento Territorial en especial frente al tema de uso y ocupación del territorio como el del licenciamiento urbanístico.

Apoyar a las municipalidades para fomentar los procesos de licenciamiento y control urbano.

Consolidar una estrategia de capacitación liderada por los gremios de la construcción, las universidades y el SENA para afianzar los principios constructivos a todo nivel, dirigido a multiusuario (Maestros de Obra,

Obreros, Técnicos, Arquitectos e Ingenieros).

Costa Rica (in Spanish)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

No

Means of Verification:

* Yes: Investment in drainage infrastructure in flood prone areas

* Yes: Slope stabilisation in landslide prone areas

* No: Training of masons on safe construction technology

* Yes: Provision of safe land for low income households and communities

Description:

Los proyectos de vivienda de interés social, para el reasentamiento de poblaciones en condiciones de pobreza, se desarrollan con estudios de impacto ambiental y de riesgo a desastres. Estas y cualquiera otra edificaciones se hacen con sustento en el código sísmico porque es obligatorio y bajo fiscalización del Colegio de Ingenieros y Arquitectos.

Se realizan obras de mitigación, principalmente en cauces de ríos y taludes.

Context & Constraints:

Muchas de las obras de mitigación se realizan una vez ocurrido el evento y como parte del proceso de reconstrucción de la zona afectada. Se estima que un 50% de lo que invierte en país en obra pública está destinada a la recuperación y no al desarrollo, por lo que se hacen esfuerzos por variar este esquema de inversión.

Cuba (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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

* Yes: Investment in drainage infrastructure in flood prone areas

* Yes: Slope stabilisation in landslide prone areas

* Yes: Training of masons on safe construction technology

* Yes: Provision of safe land for low income households and communities

Description:

Todas las inversiones en infraestructura urbana, deben ser sometidas al proceso de compatibilización con los intereses de Defensa Civil, establecidos por el Decreto Ley, en los que se valoran todos los peligros, vulnerabilidades y riesgos a que pudieran estar expuestos los territorios objeto de la inversión, cualquiera que sea su índole. Dentro del plan de reordenamiento urbano, ha previeron la reubicación de comunidades y se han construido de nuevos asentamientos para los pobladores que se han trasladado voluntariamente de comunidades vulnerables, así como otros ejemplos de inversiones hechas en las comunidades para reducir el riesgo.

El nivel profesional de las diferentes especialidades de los obreros de la construcción permite la construcción segura de las obras.

La legislación vigente sobre la tenencia de la tierra, asegura que todo el que la trabaje tenga garantizada su permanencia en ella.

Context & Constraints:

Las condiciones creadas por la Revolución Cubana, desde 1959, garantiza la preservación de valores tales como acceso universal a la cultura; salud pública, educación y seguridad social para todas las cubanas y cubanos. Las limitaciones que se presentan están localizadas en la escasez de financiamiento para el desarrollo integral y sostenible del país, como consecuencia del injusto bloqueo a que nos tiene sometido el gobierno de EEUU

Dominican Republic (in Spanish)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

No

Means of Verification:

* Yes: Investment in drainage infrastructure in flood prone areas

* Yes: Slope stabilisation in landslide prone areas

* No: Training of masons on safe construction technology

* No: Provision of safe land for low income households and communities

Description:

- En las principales carreteras del país se han realizado trabajos de estabilización de laderas en zonas proclives a deslizamientos. Asi como reforzamiento en los taludes.

Context & Constraints:

- Las inversiones en infraestructura de desagüe en zonas proclives a las inundaciones debe estar orientada a disminuir los riesgos en asentamiento urbanos.

-Promover la formulación participativa del Plan Nacional de Ordenamiento Territorial y su aplicación en todos los proyectos de desarrollo, para asegurar la sostenibilidad de los mismos. Este deberá integrar la variable de riesgo para orientar el uso de suelo y la formulación de criterios para la reubicación de la población en riesgos.

- Incorporar la reducción de riesgos en los proyectos de inversión pública y privada.

- Desarrollar mecanismos para garantizar la responsabilidad legal de constructores de edificaciones públicas y privadas respecto a su calidad y durabilidad.

Ecuador (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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

* Yes: Investment in drainage infrastructure in flood prone areas

* Yes: Slope stabilisation in landslide prone areas

* Yes: Training of masons on safe construction technology

* Yes: Provision of safe land for low income households and communities

Description:

La Secretaría Nacional de Gestión de Riesgos, como ente rector de la reducción de Riesgos en el Ecuador, busca crear una organización sistèmica de la cual formen parte el Estado y la sociedad, para lograr una gestión eficiente e integral para la reducción del riesgo y manejo de emergencias y desastres. Dentro del desarrollo de sus actividades, la Secretaria, contribuye a precautelar la vigencia en el entorno nacional de los derechos garantizados por la Constitución, así como a la adopción de medidas que permitan que la población tienda a desarrollarse en un ambiente sano y ecológicamente equilibrado.

Dentro de la política implementada por el Gobierno Nacional, se ha previsto la concesión de recursos a favor de los Gobiernos Autonomos Descentralizados–GAD para financiar proyectos de inversión destinados al desarrollo de infraestructura pública en beneficio de la población en general, por lo que ha dispuesto el diseño y ejecución de un programa de financiamiento para obras de mitigación y prevención de riesgos en varias provincias del país; este programa esta orientado a la Reducción de riesgos en las zonas de mayor vulnerabilidad y riesgo.(124 millones)

El Ministerio de Desarrollo Urbano y Vivienda (MIDUVI) cuenta con un Bono de Vivienda y presupuesto para reubicación de la población mas vulnerable.

Context & Constraints:

Contar con obras de infraestructura de MITIGACIÓN Y PREVENCIÓN que tomen en cuenta la variable RIESGO para que sea efectiva la Reducción de Riesgos

El Salvador (in Spanish)**Level of Progress achieved:**

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

Is there investment to reduce the risk of vulnerable urban settlements?

No

Means of Verification:

- * No: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

Sí, existen lineamientos estratégicos establecidos en la Política de vivienda y desarrollo urbano, que están incorporadas en el Plan Quinquenal, en estos lineamientos se establecen medidas para lograr la reducción del déficit que pretende mejorar los servicios básicos de millares de familias en las ciudades y en el campo, para minimizar la vulnerabilidad en que viven estas familias.

Se cuentan con programas y proyectos tanto nacionales como internacionales que contemplan el tema de la estabilización de taludes en zonas propensas a los deslizamientos, inundaciones, etc.

A raíz de los daños ocasionados por la Tormenta Tropical IDA, el Viceministerio de Vivienda, creó una unidad de trabajo llamada "Unidad de Reconstrucción y Manejo de Riesgos", que pretende responder de manera efectiva, rápida y coordinada con otras instituciones del Estado para solventar de inmediato el impacto causado en la pérdida de viviendas de la familia salvadoreña de escasos recursos. El objetivo perseguido es la construcción de viviendas en asentamientos nuevos que no se encuentren en zonas de alto riesgo, asignándoles a su vez servicios básicos y sanitarios indispensables para una vida digna. Las actividades se llevan a cabo en coordinación con otras instituciones del Estado tales como FONAVIPO, ANDA, MARN y Organizaciones de la Sociedad Civil, Gobiernos Locales y ONG'S. A la fecha se ha llevado a cabo la creación de un primer Programa llamado "Programa de construcción de viviendas para sectores vulnerables en 5 Departamentos afectados por la Tormenta Tropical IDA".

Context & Constraints:

Aunque hay expresa voluntad política del actual Gobierno de la República, en cuanto a mejorar los servicios básicos disponibles en los asentamientos populares, para reducir el hacinamiento y minimizar la vulnerabilidad en que viven las familias más pobres y de clase media, no se ha podido satisfacer este punto, como se esperaba, debido a las condiciones financieras en las que se encuentra el país, así mismo y tal como se expresó en las limitantes del Indicador Básico 3, sumado a esto los costos que ha traído, los últimos eventos adversos que han impactado al territorio, y que ha implicado brindar a la población afectada, una respuesta pronta y eficaz, durante la emergencia y desarrollar programas inmediatos de

Guatemala (in Spanish)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

No

Means of Verification:

- * No: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

Bajo el liderazgo de la Secretaría de Planificación y Programación de la Presidencia –SEGEPLAN- para agosto 2010 se completaron 240 de 333 planes municipales de desarrollo, donde se incorporó la variable riesgo como un elemento de análisis más.

En una segunda etapa, se trabaja en la formulación de planes de ordenamiento territorial, en al menos 15 municipios considerados prioritarios y el plan de ordenamiento metropolitano que será lanzado en 2010.

En marzo 2010 se emitió el Acuerdo Número 03-2010 de la Secretaría Ejecutiva de la Coordinadora Nacional para la Reducción de Desastres –SECONRED- , en donde se emite la Norma para Reducción de Desastres Uno (NRD-1). Esta norma tiene como objeto establecer los criterios técnicos mínimos, que deben implementarse en el diseño de obras de infraestructura nuevas, la remodelación o reparación de obras existentes, y la evaluación de éstas a efecto de prevenir daños a la integridad de las personas y a la infraestructura indispensable para el desenvolvimiento socioeconómico de la población.

La normativa será aplicable a las obras críticas, esenciales e importantes, conforme la clasificación contenida en la Norma Recomendada AGIES NR-1-2000, Bases Generales de Diseño y Construcción.

Context & Constraints:

A nivel de país es importante que se continúe trabajando en lograr que todos los municipios cuenten con un plan de desarrollo donde la variable riesgo sea incorporada de manera integral para abordar el tema con propiedad y así construir un camino sólido hacia la resiliencia de las comunidades.

Así mismo, es importante continuar el trabajo en el desarrollo de normas de construcción en las obras públicas y privadas, tanto las consideraciones que deben hacerse en la infraestructura (tipo de estructura, calidad de materiales), como en las evaluaciones de sitio correspondientes, para que en conjunto se logre minimizar la vulnerabilidad estructural.

Honduras (in Spanish)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

No

Means of Verification:

- * No: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

Lo que existe es una falta de transparencia en el otorgamiento de los permisos de construcción. Faltan ordenanzas municipales de donde construir y no. Así mismo aplicarse la Ley para las zonas vulnerables. (Fuente de Información SEPLAN)

Context & Constraints:

Falta el código de construcción civil, (viviendas de todo tipo).

Jamaica (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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

The achievements to date have been in the form of policy and legislation mainly as listed below.

Building codes
Town & Country Planning Act
Local improvements Act
Parish Council's Act
NRCA Act
Development Approval process

The country's frequent experience with hazards prompted the decision for Environmental Impact Assessment to be a requirement for medium to large scale projects or those that are undertaken in environmentally sensitive areas. The National Disaster Office is also required to conduct vulnerability assessments for some types of developments.

Amendments being made to the existing Building Code.
Improvement in attitude towards change.
World Bank project for Slope Stabilization.
Safe Roof and Safe Building training.
Guidelines and Draft Policy for hillside development.

Context & Constraints:

There are limitations towards comprehensive management of human settlements due to the outmoded nature of numerous development orders and the deficiency in the institutional capacity of monitoring agencies to enforce existing legislation

Mexico (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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology
- * Yes: Provision of safe land for low income households and communities

Description:

Aunque existen normas para el ordenamiento territorial, la LXI Legislatura de la Cámara de Diputados acordó la creación de un marco normativo para lograr que el crecimiento urbano en México sea ordenado y con respeto a las zonas con riesgo inundación. Asimismo se asignarán mayores recursos a la Comisión Nacional del Agua en el Presupuesto de Egresos de la Federación 2011.

En respuesta a los crecientes problemas de inestabilidad de laderas en diferentes regiones de México, al gran impacto que tienen en la vida de la población, y los daños que ocasionan a la infraestructura, se puso en operación el Sistema de Comunicación a Distancia del proyecto de instrumentación geotécnica,

sísmica y pluvial de una ladera potencialmente inestable en la Sierra Norte de Puebla. Se dio continuidad al proyecto de vigilancia geodésica de una ladera inestable en Teziutlán, Puebla. Del mismo modo, se continuó el monitoreo geodésico para determinar los desplazamientos superficiales en dicha ladera.

En relación con el suelo, edificación y patrimonio construido, se ha creado el Programa Especial de Cambio Climático, el cual plantea que se debe promover la incorporación de criterios preventivos de adaptación ante los efectos del cambio climático en las políticas y programas de desarrollo urbano y ordenamiento territorial, que atiendan en particular a los sectores más vulnerables de la población.

Context & Constraints:

Asignación de recursos para mejorar el ordenamiento territorial.

Nicaragua (in Spanish)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology
- * Yes: Provision of safe land for low income households and communities

Description:

Se ha avanzado en la reubicación de 390 familias que habitaban en la costa del Lago de Managua y que fueron afectadas por las intensas lluvias del año 2008, hacia el Asentamiento "Huellas de Jesucristo", en el Municipio de Tipitapa, para reducir las condiciones de vulnerabilidad social y ambiental de la población en riesgo.

Se incorporado criterios de reducción de vulnerabilidad en infraestructuras aéreas, obras drenaje, se han implementado medidas de mitigación y estudios de vulnerabilidad de acueductos. Especial énfasis merece el recién terminado proyecto de Saneamiento del Lago de Managua, que con la construcción de redes de tuberías desviando la ruta de las aguas negras de la ciudad de Managua, desde el Lago hacia las plantas de tratamiento de aguas, se reduce sustancialmente la vulnerabilidad en adquirir enfermedades contagiosas y epidemias de los capitalinos.

Actualmente, existen importantes iniciativas para establecer estrategias encaminadas a la protección de los recursos acuíferos, la Empresa Nicaragüense de Acueductos y Alcantarillados -ENACAL impulsa el saneamiento y tratamiento adecuado de las aguas residuales en importantes cuencas hidrográficas, como la de la Laguna de Masaya, Lago de Nicaragua y Xolotlan.

Las nuevas plantas que se construyen para la generación de energía, incorporan normas de construcción de obras civiles y reducción de riesgos, en el 2009 se instalaron nuevas Plantas de ALBANISA y una Planta Eólica AMAYO en Rivas.

Context & Constraints:

El presupuesto es limitado para una planificación integral de reubicación de asentamientos humanos en riesgos, lo que mantiene una dependencia fuerte de la Cooperación Internacional para la implementación de los procesos constructivos.

Panama (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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology
- * Yes: Provision of safe land for low income households and communities

Description:

Respecto a las inversiones para reducir el riesgo de los asentamientos humanos vulnerables, debemos señalar que el presupuesto general del Ministerio de Obras Públicas para inversiones y funcionamiento para el bienio contemplan se cubran las siguientes proyecciones:

Dentro de las actividades previstas dentro del presupuesto de funcionamiento que ejecuta la dirección Nacional de mantenimiento se llevan a cabo actividades de mantenimiento rutinario y periódico en las área de : Conformación de cunetas, colocación de gaviones, corte de Talud, dragados de causes de ríos y quebradas y limpieza de derrumbes.

Dichas actividades corresponden a medidas de prevención, mitigación a riesgo de desastre y respuesta a emergencia. El presupuesto de inversión incluye programa de construcción y rehabilitación de drenaje: Canalización de ríos y quebradas(Río abajo. Tocumen,Pacora; Protección de taludes en río Sixaola, Río Caldera y río Chiriquí Viejo; drenaje pluvial Chitre, Las Tablas, Los Santos , Sta. Librada, la Gallinaza, las Cumbres, Belisario Frías, Omar Torrijos, Victoriano Lorenzo, El Tecal, Chorrillo y Curundú). Dentro del programa de mantenimiento y rehabilitación vial se consideran: Programa de fortalecimiento (Institucional; administracion-diseño e inspección de proyecto), desarrollo y preparación de mapas, desarrollo y actualización de Atlas Nacional de Panama(cuencas y Zonas inundables, susceptibles a deslizamientos por distrito más vulnerables y zonas sísmica con tectónicas de placas), desarrollo y modernización de los sistemas de información geográfica del Instituto Geográfico Nacional Tommy Guardia , y construcción de la infraestructura de datos de Panamá.

Respecto al cumplimiento de los códigos de construcción:

El Ministerio de Obras Públicas se rige con las especificaciones técnicas generales para la construcción y rehabilitación de carreteras y puentes del MOP, II edición 2002 y sus implementarias aplicables.

Para estudio diseños y planos de construcción de carretera y puentes vehiculares se incluyen los términos de referencias las siguientes normas y especificaciones:

Especificaciones estandares para diseños de puntas y Carreteras AASHTO. Edición de 1996 o mas

reciente, o las especificaciones de puentes LRFD, vigentes.

Reglamento de diseño estructural de la República de Panamá, para los efectos de determinar el coeficiente de aceleración sísmica durante el análisis sísmico.

Especificaciones técnicas generales para la construcción y rehabilitación de carreteras y puentes del MOP, II edición 2002 y sus suplementarias aplicables.

Manual de Especificaciones ambientales. Edición de agosto 2002

Compendio de leyes y decretos para la protección del medio ambiente.

Manual de procedimientos para tramitar permisos y normas para la ejecución de trabajo de las servidumbres públicas de la República de Panamá.

El Ministerio de Vivienda y Ordenamiento Territorial, que es la institución encargada de Planificación y ordenamiento de las construcciones, así como de los asentamientos, clasifica las áreas de desarrollo. Existe en Plan de Ordenamiento Territorial, como un instrumento técnico, normativo, político y administrativo para la gestión del territorio, mediante el cual se planifica y regula el uso, ocupación y transformación del espacio físico urbano y rural, que orienta y optimiza las modalidades de ocupación. Entendiéndose como un instrumento "de pacto social", entre la Población, el Estado y su territorio. (Resolución #402 del 22 de junio 2010).

Anexo 2, Capítulo 1. Descripción y diagnóstico de las condiciones existentes.

Numeral 1.1.3. En donde se refiere a zonas de vulnerabilidad y riesgo: Se señala a las zonas afectadas por fenómenos de origen geológico Hidrológicos y atmosférico, tales como terremotos erupciones volcánicas, erosiones del suelo, maremotos, inundaciones, ect. O posibles eventos desastrosos originados por tecnología peligrosas tales como accidentes provocados por el hombre o fallas técnicas. El riesgo se entiende por relacionar la amenaza o la probabilidad de la ocurrencia de un evento, y la vulnerabilidad de los elementos expuestos.

Context & Constraints:

En el ámbito institucional se realizan las inversiones para realizar infraestructuras que mitiguen la vulnerabilidad, y se utilizan los fondos de inversión.

Pero en realidad con un presupuesto asignado para el tema se podrían conseguir más recursos. Existen las normativas pero habría que articularlas con el enfoque de Riesgo.

Paraguay (in Spanish)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

* Yes: Investment in drainage infrastructure in flood prone areas

* Yes: Slope stabilisation in landslide prone areas

* No: Training of masons on safe construction technology

* Yes: Provision of safe land for low income households and communities

Description:

En este sentido debemos mencionar que muy pocos municipios cuentan con ordenanzas y marcos regulatorios al respecto. Dado el bajo interés de los gobiernos subnacionales de contar con este tipo de reglamentaciones.

Context & Constraints:

Los municipios del país encargados de este tipo de reglamentación no cuentan con la capacidad institucional técnica ni de cumplimiento de las mismas para el logro del objetivo principal, la limitación más importante es el alto grado de vulnerabilidad económica de los departamentos del país que hacen propicia la migración campo ciudad y con esto la aparición de asentamientos urbanos de hecho, quienes solicitan cada vez más la prestación de servicios y dotación de infraestructura urbana básica.

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

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * No: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

El Ministerio del Ambiente, con Resolución Ministerial N° 026-2010-MINAM de fecha 26.02.10, aprobó “Los Lineamientos de Políticas para el Ordenamiento Territorial”, que constituyen un referente para las autoridades locales y regionales a cargo de la planificación del territorio.

Los lineamientos con objetivos y acciones priorizadas para impulsar los procesos de Ordenamiento Territorial sobre la base de la zonificación Ecológica Económica. Un aporte importante de éste documento radica en proponer una cultura de prevención a través de acciones concretas como establecer la incorporación de variables ambientales, socioeconómicas y de gestión de riesgo en los procesos de desarrollo educativo; además de promover que las instituciones educativas formulen proyectos y estudios de investigación que contribuyan a la reducción de riesgos en comunidades ubicadas en zonas vulnerables.

El Ministerio de Vivienda, Construcción y Saneamiento, a través del Vice ministerio de Vivienda y urbanismo, y con el apoyo de las Municipalidades Provinciales ha situado terrenos donde reubicar a la población afectada por las inundaciones dadas por las lluvias ocurridas entre 2009 y 2010.

Las poblaciones más afectadas se encuentran en Cusco, Huánuco, Puno y Huancavelica, donde se ha iniciado la construcción de módulos de vivienda. A través del Vice ministerio de Construcción y saneamiento, la Dirección Nacional de Saneamiento está desarrollando las alternativas para dotar de agua y saneamiento a estos nuevos asentamientos de viviendas, que han sido ubicados considerando todos los estudios de vulnerabilidad, por lo cual no serán afectados nuevamente por inundaciones.

Existe el Programa de Ciudades sostenibles, especificado para las principales ciudades

Context & Constraints:

No existe una Ley de Ordenamiento Territorial, se está trabajando una propuesta al respecto.

No existe normatividad que determine que las zonas afectadas por desastres o altamente vulnerables no sean consideradas habitables o sean repobladas.

El Programa de Ciudades sostenibles tiene limitaciones en su implementación por falta de compromiso de autoridades locales y Regionales.

Existe una normativa de construcción a nivel nacional. Sin embargo, el control del crecimiento de las zonas periurbanas sigue representando un desafío para todo gobierno local.

Hace falta revocar un dispositivo que exime a las constructoras de la opinión de los entes reguladores si hay demora en la emisión de su informe.

Saint Kitts and Nevis (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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * No: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

The following facilities are in place:

- The national building codes and zoning laws
- Investment in drainage infrastructure in flood prone areas
- Slope stabilisation in landslide prone areas
- Training of masons on safe construction technology
- Provision of safe land for low income households and communities

Context & Constraints:

Consistent enforcement of building codes and zoning law remains a challenge.

Land management needs to be improved to minimize soil erosion and to prevent land degradation.

Following the closure of the sugar industry that undertook a vast portion of such activities there is need for a comprehensive well resourced system (personnel and equipment) for land management. This is a critical need as part of the country's mitigation activities.

Saint Lucia (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology
- * Yes: Provision of safe land for low income households and communities

Description:

The Physical Planning and Development Act covers some DRR considerations and requires the enforcement of some building codes; it also allows for the review of development plans by NEMO where DRR considerations may be addressed. The Ministry of Housing undertakes some regularizing of squatter settlements in the country under the Project for the Regularization of Unplanned Developments (PROUD) and in its activities it does consider DRR issues.

Context & Constraints:

The existing building codes need revision and update. Additionally they need to be enforced more stringently.

The Development Control Authority need to solicit input from relevant expert Agencies more frequently, when they review development plans, to facilitate more effective decision making.

Turks and Caicos Islands (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology

* No: Provision of safe land for low income households and communities

Description:

While some of the key indications are being met, they are only done on occasion or as the need arise

Context & Constraints:

With limited land resource left in the TCI it is a challenge to provide persons with safe land for low income households. What can be done is that the technology used in building homes must take into consideration the location where they are being built

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

* Yes: Investment in drainage infrastructure in flood prone areas

* Yes: Slope stabilisation in landslide prone areas

* Yes: Training of masons on safe construction technology

* No: Provision of safe land for low income households and communities

Description:

Building codes represent a key component of disaster risk reduction in the United States. Such codes are predominantly adopted, implemented, and enforced at the state and local levels.

FEMA manages several risk analysis programs to assess the impact of natural hazards that lead to effective strategies for reducing risk. These programs support the U.S. Government objective to “strengthen nationwide preparedness and mitigation against natural disasters.” FEMA has initiated Risk MAP to deliver quality data to increase public awareness and support community action that reduces risk to life and property. Through this program, FEMA expects to ensure: that 80 percent of the Nation’s flood hazards data is current—the flood hazard data are new, have been updated, or deemed still valid; that local officials are aware of risks from natural hazards; and that communities take action to reduce risk. FEMA is charged with maintaining reliable flood hazard information to support the National Flood Insurance Program, where the U.S. Government has an exposure of \$1.2 trillion. These efforts simultaneously provide local officials, communities and citizens with the information they need to reduce the risk of loss of life and property from flooding.

For more than a decade, FEMA has partnered with the Federal Alliance for Safe Homes (FLASH) on building disaster resiliency outreach. Founded 12 years ago, FLASH serves a critical role in educating Americans about the ways they can lessen the impacts of hurricanes, floods, fires, earthquakes, and other

natural hazards on their homes. Over its history, FLASH has built a unique coalition of more than 100 organizations ranging from local governments to private sector enterprises, to the insurance industry and the federal government, all committed to reducing the damage from natural hazards.

A much needed landslide handbook for non-technical users published by the USGS and the Canadian Geological Survey entitled, "The Landslide Handbook—A Guide to Understanding Landslides," was translated into Portuguese, Japanese, and Chinese; and a Spanish version is being translated by the World Bank.

Context & Constraints:

See above.

Venezuela, Bolivarian Rep of (in Spanish)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * No: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * Yes: Provision of safe land for low income households and communities

Description:

El gobierno nacional inicio la declaración de las siete zonas de alto riesgo en el Distrito Capital, con la finalidad de reubicar a las comunidades organizadas en áreas seguras. En este sentido, a través de los comités populares de vivienda, las familias afectadas presentarán los proyectos habitacionales socioproductivos.

Venezuela cuenta con códigos de construcción sismorresistentes y actualmente, bajo el liderazgo del Ministerio del Poder Popular para El Ambiente, realiza la actualización del Plan de Ordenamiento Territorial.

Context & Constraints:

- Una parte importante de la reglamentación sobre el ordenamiento territorial y las normas de construcción no se cumple y dicho incumplimiento no es sancionado. En este sentido, la Ley de Gestión de Riesgos Socionaturales y Tecnológicas prevé que, en los niveles esadales y municipales, se podrán imponer sanciones administrativas por el incumplimiento de las normas técnicas de seguridad y protección, lo que constituye una innovación para el ordenamiento jurídico venezolano, en esta materia.

Asia

Bangladesh (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

A National Committee has been formed to review and update the National Building Code. Ministry of Land is preparing for National Land Zoning and National Land Use Planning which is supposed to identify safe settlement zones. Apart from this, RAJUK (Capital City Development Authority) has already finalized Detailed Area Plan (DAP) aimed at facilitating proper urbanization through City corporation. Adaptation to Climate Change through coastal afforestation project of the Ministry of Environment and Forest in collaboration with the Ministry of Land and Ministry of Water Resources are planning to identify vulnerable coastal zone and protection of coastal settlement from potential natural hazards. Building codes are introduced in urban areas. Rural and urban land use planning is under active consideration of the Government. Government prepared a plan to resettle the vulnerable people in the Chittagong Hill Tract to safer places. Building Code document includes a guideline on planning settlement. GoB hosted a regional workshop to develop a guideline on community based risk reduction and BUET also hosted a workshop on developing disaster risk resilient infrastructures.

Context & Constraints:

Building codes are in place, updating is in progress but enforcing the updated/existing building codes to all sectors and all cities is challenging task. Besides appropriate authority to monitor the building code enforcement are having shortage of human and technical resources.

Brunei Darussalam (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

The National Land Use Master Plan 2006-2025, was prepared under the auspices of the TCP which superseded the 1987-2005 Negara Brunei Darussalam Master Plan (NBD Master Plan). Major achievements of the past master plan according to the TCP are: the promotion of protection of forests, natural resources and environmentally sensitive areas through land use zoning; allocation of assorted Housing Scheme sites; expansion of Bandar Seri Begawan Board Area; and identification of Sungai Liang as a long-term strategic industrial reserve.

Context & Constraints:

-

Georgia (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

The competencies of NEA includes: engineer-geological advance assessment for legalization of land plots of engineer-economic purposes; Implementation of engineer-geo-ecological and hydro geological assessment works for the objects chosen beforehand to be given minerals extracting license to avoid negative impact on the geological environment.

One of the main points in reducing vulnerability of economic activities is the planning and construction of human settlements and establishment of building codes, which scopes include the requirements for earthquake, strong wind, landslide, mudflow, shoreline erosion and flood resistance, especially in disaster prone areas. The regulated activities of NEA includes Implementation of conducting engineer-geological,

geotechnical and hydro-geo-ecological studies at any stage of projecting, for all types of civil and industrial objects despite of the customer, as well implementation of all scales (including specialized) of engineer-geological, engineer-geodynamic and geo-ecological studies, for sustainable assimilation of the territory and reliable disposition of engineer objects and efficient management of geological environment.

Context & Constraints:

Under economic conditions at the time of the review, including dependence on external financing, the government of Georgia does not consider DRR.

Despite the engineer-geo-ecological, geodynamic and hydro geological activities are regulated by legal framework of NEA the current state policy does not determine DRR as the effective means for land use planning that is carefully designed and rigorously implemented is a useful approach to managing expanding human settlements and minimizing associated risks, including disaster risk reduction elements in land-use plans as an important strategy for reducing the vulnerability of economic and productive sectors.

Disaster risk management requires in Georgia strengthening the legal frameworks, creation of reserve funds or their increase and diversification in terms of sources of their formation, purposes, and target areas and groups.

India (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology
- * Yes: Provision of safe land for low income households and communities

Description:

There is an increasing emphasis to incorporate hazard safety measures at the settlement planning level in Master Plans and City Development Plans.

For ensuring structural safety from natural hazards the National Building Code are second to none in technical content in India. The National Building Code is advisory in nature and lays down a set of minimum provisions relating to structural safety, fire safety and health safety to ensure safe habitat for public. In addition to it there are hazard specific codes designed by Bureau Of Indian Standard to ensure structural safety against natural hazards like floods, Cyclone, Landslides and Earthquakes.

Ministry of Home Affairs has also developed a Model guidelines providing necesasry recommendations

for amendments of Zoning Regulations, Development Control Regulations, Town and Country Planning Act and building byelaws to ensure structural safety natural hazard prone areas.

Many State governments have revised their land use zoning regulations and amended their byelaws to incorporate disaster risk reduction elements and developed compliance mechanism to ensure implementation of the building codes.

Context & Constraints:

The implementation of the provisions prescribed in the building codes and compliance to the building byelaws is an area of concern. There is a need to establish adequate compliance mechanism at local level to implement these tools.

Also despite creating an enabling environment there is an apprehension among people that adding disaster resilient features into the structural design may be costly and not much effective.

There is a need to provide adequate training and create awareness among the engineers, architects, masons and common citizens about disaster resistant technology and its usefulness.

Indonesia (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

Indonesia has already had policies that regulate the planning and management of human settlements that contain disaster risk reduction considerations, for instance the Spatial Planning Bill and the Law No. 28 year 2002 on High-rise Building, the building code, micro-zoning regulations and several other regulations. In several areas that are highly-prone to earthquake, the governments and non-government partners have disseminated information to the public on the importance of earthquake-resistant building. Building artisans in those places have also been trained on earthquake safe construction. Initial efforts to certify building quality, particularly for public buildings, have also been implemented.

In the National DM Plan, fourteen hazards have been identified. The Ministry of Public Works has aligned its settlement policies with risk reduction considerations. For earthquake hazard, Indonesia has just developed guidelines and 9 Richter Scale earthquake resistant building standards that have been tested and nationally standardized. During the post Aceh Tsunami recovery, 1,000 earthquake resistant houses

have been built and the model will be replicated in earthquake-prone areas.

Indonesia has already had earthquake resistant building code up to 9 SR that has been tested and nationally standardized. During the post-tsunami recovery, more than 1,000 earthquake resistant houses have been built and replicated in other earthquake-prone areas. In implementing the Green Village Program, local governments have implemented conservation measures to reduce environmental damage while at the same time improving the people's livelihoods.

Context & Constraints:

One of the challenges in mainstreaming disaster risk reduction into the planning and management of human settlements is the inconsistency in the implementation of policies and regulations related to spatial and infrastructure planning. Besides the weak law enforcement, safety culture has also yet to be built, so that it is difficult to promote the issue of disaster risk reduction integration into the planning and management of human settlements.

In the future Indonesia needs to further encourage safety culture among the public, particularly in the planning and management of its citizens' settlements. Development also needs to be encouraged to incorporate people's vulnerability considerations.

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology
- * Yes: Provision of safe land for low income households and communities

Description:

Japan has City Planning Act which incorporates disaster risk reduction elements in the provisions. Especially it stipulates the measures to be taken for dense populated residential areas. Based on the Act and the related plans, disaster management bases with such functions as information management, operations coordination and logistics need to be developed and networks has been constructed. Additionally, subsidies are provided to local governments to promote qualitative and quantitative improvements of local disaster management bases.

Japan also has the Building Standard Act (enacted in 1950) and the Act on Promotion of Seismic Retrofitting of Buildings (enacted in 1995). It has been confirmed that buildings constructed under the revised Building Standard Act (known as the "New Seismic Design Standard") enacted in 1981 have adequate earthquake resistance.

The Central Disaster Management Council drafted Urgent Countermeasures Guideline for Promoting the Earthquake-proofing of Houses and Buildings in 2005 which set a national target for lifting the rate of earthquake-proofed houses from the current 75 percent to 90 percent within 10 years. Furthermore, the Act on Promotion of Seismic Retrofitting of Buildings were revised in January 2006, and defined the national goal for raising the rate of seismic resistant buildings from the current 75 percent to 90 percent within 10 years.

In consideration of the estimated significant damage in the congested urban areas when an earthquake occurs, the urban areas which have high risks of suffering from conflagration was designated as the prioritized areas to improve the countermeasures within 10 years from 2001. The amendment of the relevant Act in March 2007 and tax incentives have contributed promotion for improvement of old buildings in the congested urban areas.

Context & Constraints:

Many buildings in Japan (roughly one-third of the total) have inadequate earthquake resistance because they had been built before the relevant standards were tightened in 1981; it has been pointed out that little progress is being made in improving the earthquake resistance of these aged buildings. Therefore, to reduce the burden of the cost for seismic retrofitting, especially for housing owned by private sector, by means of subsidies, tax incentives and financing systems has been strategically promoted.

Lao People's Democratic Republic (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * No: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

Under the project "Mainstreaming DRR into Education Sector" (MDRD-EDU) a study on impacts of disasters on education sector was conducted by the Public Works and Transport (PTI). The valuable information from the study ranges from basic information on socio-economic and physical impacts of disasters on building codes, structural design and construction materials. The study showcases the structure of education sector in general, disaster risk/management in particular along with the institutional arrangement for country specific DRR. It emphasizes the need for improved hazard resilience of school construction and advocates for integrating hazard resilient construction techniques in the programs and projects under the MoE.

A UNDP Regional Project implemented by the NDMO and ADPC conducted a research on the impact of disasters on the education sector. The findings and lessons learnt from the research will be used to

advocate for the construction/retrofitting of disaster resilient schools. They should also provide valuable national mainstreaming examples to build support for further mainstreaming of disaster risk reduction into development policy and planning as well as for making other buildings disaster resilient.

In 2010, the Asian Disaster Preparedness Centre (ADPC) in close coordination with NDMO and under overall support by UNDP developed a national hazard and risk profile for Lao PDR, providing a ground breaking risk assessment tool essential for use by the government of Lao PDR in the formulation of safe and sustainable urban planning.

In 2009 WHO and the MoH undertook the “Hospitals Safe from Disaster” initiative within Lao in all 17 provinces throughout the country training 51 health workers focussing attention on the safety of Lao PDR health facilities to assist in ensuring they remain functioning when disaster strikes. The training advocates that reducing health risks from emergencies, disasters and other crises is achievable. The platform aims to:

- 1) build a health risk reduction community, which includes representatives of all sectors contributing to health risk reduction
- 2) Achieve a greater investment of government resources to health risk reduction
- 3) Enable the health sector to contribute more effectively to disaster risk reduction through national, regional and global platforms for disaster risk reduction

Context & Constraints:

Constraints

Advocacy for safe hospitals requires funding

Advocacy for integrating hazard resilient construction techniques into schools requires funding. Local authority may not have the capacity and resources to consider disaster management issues in their local development plan.

The Way Forward

Securing of adequate funding and resources to commence construction and retro fitting of Lao schools to ensure disaster resilience to build on initial studies and MoE guidelines produced.

A similar initiative should be undertaken for Hospital/Health Facility Construction Guidelines to build on the “Make Hospitals Safe from Disaster training undertaken by MoH and WHO – particularly for the smaller health facilities in the provinces. Additional capacity building should take place to capacitat and raise awareness about the relationship between disaster management and local development urban planning efforts should also include disaster risk reduction measures (proper building code enforcement and land use zoning).

Lebanon (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

* Yes: Investment in drainage infrastructure in flood prone areas

* Yes: Slope stabilisation in landslide prone areas

* Yes: Training of masons on safe construction technology

* No: Provision of safe land for low income households and communities

Description:

Despite the fact that the reconstruction process after the 2006 war respected the anti seismic code in some areas, there remains a general lack of control and implementation of such codes.

In 2005, the Lebanese government passed a Decree of Public Safety for earthquakes, fires, and elevators. However, this decree has yet to be implemented and applied.

Context & Constraints:

The main challenge lies in the fact that the Decree of Public Safety has yet to be implemented. In addition, most human resources in this field are unskilled expatriates.

Recommendations include:

- Enforcing the Public Safety Decree and applying negative repercussions for parties that do not abide by it
- Raising awareness regarding the decree and its provisions
- Training masons in public safety building practices

Malaysia (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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

* Yes: Investment in drainage infrastructure in flood prone areas

* Yes: Slope stabilisation in landslide prone areas

* No: Training of masons on safe construction technology

* No: Provision of safe land for low income households and communities

Description:

Areas and infrastructure vulnerable to flooding and landslides are being demarcated and regularly through relevant programme, including the Road Platform Rise Up Study and the National Slope Master Plan study by the Public Works Department, and climate change risk and impacts studies by the Malaysian Meteorological Department and Drainage and Irrigation Department. An inventory is developed on susceptible areas and different types of landslides hazards and risks, including hazard and risk maps in landslide prone areas. Guidelines for Slopes has been widely applied to minimize risks in slope failure disasters. In flood prone areas, road platform and drainage system are being upgraded and indigenous building concept for High Pillar School Building is being considered for alleviation of flood). Through Public-Private-Partnership with the Syarikat Perumahan Negara Berhad (SPNB), several housing projects have been completed to relocate flood and tsunami prone residential areas in Peninsular Malaysia and

Sabah.

Context & Constraints:

While financial resources will be the main constraint to investment for risk reduction, it is also necessary to stimulate innovative and cost-effective options for proofing infrastructure against disaster risks. The initiation of the 'Making City Resilient' campaign could be a platform to stimulate greater local interest and drive initiatives that suit local context and interests.

Maldives (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

No

Means of Verification:

- * No: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

Resilient island planning is being implemented by the government. The recently revised national Building Code is going to be used as a good practice guideline until Building Act is implemented in 2011. The national building code has been revised with a special focus on DRR. The development of the building act is underway. Population relocation of some communities is taking place and land use plans are being developed for inhabited islands.

Context & Constraints:

A draft of Building Act being translated to Dhivehi to be sent to the Attorney General's Office prior to the submission to the Parliament for its endorsement. The translation process is expected to be done by early 2011 and it is scheduled to be sent to the Attorney General's Office before the 2nd Quarter of 2011. The Building Code and Compliance Documents are expected to be implemented in 2011 subsequent to the implementation of the Building Act.

Mongolia (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology
- * Yes: Provision of safe land for low income households and communities

Description:

Within the framework of the investment measures in drainage infrastructure of flood prone areas, in 2010, 484.7 million MNT was invested to the flood dam of Darhan city.

The incessant flow of rural immigrants to Ulaanbaatar city has increased the urban population and population density and led to an uncontrolled and unplanned sprawling of the city. Therefore, Ulaanbaatar has become increasingly vulnerable to natural hazards and the amount of losses it suffers due to disasters is increasing year to year.

In Mongolia, the area most vulnerable to earthquake hazard is Ulaanbaatar. Earthquake risk micro-zoning of Ulaanbaatar and other areas prone to the earthquake hazard has been completed. Mongolia has approved and is implementing the standards named “Guidelines on Assessment of Earthquake Resilience of Aged Buildings”, “Guidelines on Planning Construction in Earthquake Prone Areas”, and “Methodological Guidelines on Passportization of Constructions Built in an Earthquake Prone Zone BD 133-00”.

A total of 4,124 poor households and 110 business entities are residing and operating in hazardous areas with high risk of disasters.

The first measure that needs to be taken is to evacuate these households and enterprises to safer places and the land utilization plan has determined the relocation destinations as a 220 ha in Han-Uul district, 50 ha in Songinohairhan district, 100 ha in Jargalant village and 300 ha in Nalaih district.

In recent years, the population of Ulaanbaatar has increased rapidly at a rate of 3.6 percent annually reaching 1,140,000 in 2009. The biggest factor of the increase is mechanical growth caused by immigration. More than 80 percent of the immigrants settle in the suburban slum areas adding to the population density and unplanned sprawling of the city.

Context & Constraints:

A preliminary calculation has shown that an estimated budget of 34 billion 878 million MNT is required for the activities related to evacuating the hazardous areas. The costs include establishing of infrastructures in the relocation destination areas, moving of the target households and enterprises, and providing of compensations. The lack of funds, which has been delaying the evacuation, can be resolved through acquiring grants and preferential loans from donor countries.

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

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

Is there investment to reduce the risk of vulnerable urban settlements?

No

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

A study conducted by MoHA/JICA (2002) has concluded that Kathmandu valley is at very high seismic risk and “once a great earthquake occurs, Kathmandu will suffer immense losses of life and property and will be unlikely to be able to function as the capital of Nepal.” Realizing the need to build earthquake resistant buildings, Nepal has developed Nepal National Building Code in 1994 and was adopted by the government of Nepal in 2004. Act has made it mandatory to be implanted in all municipalities and public buildings. Only four municipalities have so far adopted the building code. Lalitpur Sub-Metropolitan City started application of the building code in 2003 and now it has been adopted by three more municipalities including Kathmandu Metropolitan City.

Local municipalities, DUDBC, NGOs and professional societies have initiated the process of training masons for earthquake safer constructions and providing them license. The effort, however, is still limited to few hundreds of masons which is an insignificant number compared to hundreds of thousands of masons involved in construction industry.

Few identified slope hazard areas have been stabilized along the roads. However, landslide hazard mapping , prioritization of vulnerable areas and stabilization is still not being carried out.

Land-use planning is a significant commitment by each and every periodic development plans. Unfortunately, the implementation and monitoring is weak due to several reasons. Building Code is made compulsory in municipal areas. New public buildings have been constructed according to the norms but needs rigorous monitoring mechanism. National Shelter Policy 1996 and National Urban Policy 2007 has incorporated to some extent the issue of DRR.

In order to meet the MDG of Education for All by 2015, Nepal needs to construct 10,000 class rooms each year and new school construction should be made to comply with building standards.

Context & Constraints:

More than 85 percent of the buildings in the country are non-engineered constructions. Even the so called engineered buildings are seldom designed according to seismic building code standard. As the country is very high earthquake risk zone, the buildings are at very high risk. Earthquake safety of these existing buildings is of serious concern.

Although trained engineers and designer cannot be produced in coming few years to meet the demand of construction industry, the gap can be filled by raising awareness of house owners and developing trained contractors/ masons.

Recommendation

Up-scale the training to masons and contractors to cover all the building types particular to a geographic area

The training and awareness need to be extended also to house owners level as their decision for adopting earthquake safer houses is key to success of the program.

Link School Disaster Risk Reduction Initiatives with awareness raising and capacity building of local communities and local masons.

Ensure that all newly constructed school buildings, hospitals and public infrastructure comply with the seismic building codal provisions. For construction of new schools in remote areas, mandatory guidelines and standards should be developed in local language which can be followed by local artisans.

Develop retrofitting strategy for public facilities, schools and hospitals with tools for prioritization

Develop retrofitting guideline at national level and strengthen capacity of local authorities of Kathmandu valley and of 4 other regional centers (out of 5 including Kathmandu) for implementation of Building Code and Retrofitting for existing buildings.

Pakistan (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

-- Nothing reported within this timeframe. --

Means of Verification:

- * No: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

In view of increased frequency of natural disasters, the thinking is now emerging that Pakistan needs to promote land use planning and implementation of building codes for safer construction. Safer construction practices have been widely followed in the region affected by Earthquake 2005 as part of the reconstruction process. However, promotion and adoption of building codes in other vulnerable parts of the country remains a challenge and a priority agenda for the government. The National Building Code has been updated by including Seismic Provisions as integral part of the Code. The updated National Building Code has now been published and circulated for enforcement.

Context & Constraints:

Population growth couple with rapid urbanization works in multiple ways to create and exacerbate vulnerabilities. The continuous uncontrolled increase in population and urbanization will push more people to move and live in hazard prone locations, thus increasing the ratio of vulnerable segments of the society

with each passing year. The consistent increase in the vulnerable population due to uncontrolled growth may neutralize the DRR efforts in the long run hence may be taken as a major challenge in the implementation of DRR policies.

The second major challenge is the rampant poverty. The poor segments of the society do not have the financial capacity to build hazard resilient abodes as the observance of building codes entails additional cost of construction. The third major challenge is the lack of capacities of the local authorities to develop, update and enforce building codes in their respective areas.

To overcome the above challenges, vulnerable areas have to be identified in the first place through the national disaster risk assessment and hazard analysis exercise which is already under way. Once the exercise is completed, the Federal, Provincial and District Governments have to devise a strategy to discourage the general populace from inhabiting the vulnerable areas as a policy matter.

The second major challenge is the rampant poverty. The poor segments of the society do not have the financial capacity to build hazard resilient abodes as the observance of building codes entails additional cost of construction. The third major challenge is the lack of capacities of the local authorities to develop, update and enforce building codes in their respective areas.

Sri Lanka (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

The TAC, for the development of guidelines for construction of buildings in hazard prone areas, has completed planning and building guidelines and codes for construction of houses in landslide, floods, tsunami, and cyclone affected areas.

The Cabinet of Ministers has already approved landslide mitigation projects in landslide prone areas covering 12 districts. Mitigation activities are already taking place in Peradeniya, Padiyapellella, and the Ratnapura District.

Land slope stabilisation activities are taking place while constructing highways.

A pilot project been implemented with the assistance of ADPC in collaboration with all agencies involved in the development of housing in Sri Lanka including, the Ministry of Housing to mainstream DRR into housing projects.

Action has already been taken through the Northeast Housing Rehabilitation Project to incorporate building guidelines into the proposed housing settlement schemes. Technical Officers of the NHDA, districts and local government officers were trained on the use of building guidelines for construction in hazards prone areas.

Pilot projects are being undertaken with the UDA supported by Practical Action to incorporate DRR concepts in the preparation of an Urban Development Plan for Ambalantota Pradeshiya Sabha.

The UDA is replicating the experience obtained in the Kantale Pradeshiya Sabha to prepare a Development Plan for the Kantale city. A training manual has been developed and local government officials in the Southern Province have been trained.

A Risk Map for the urban area in the Matara Municipality is being developed with the assistance of ADPC and The Asia Foundation (TAF).

The Matara Municipal Council has developed bylaws for incorporation of DRR into urban planning and awaiting approval from provincial authorities.

The DMC has undertaken the rehabilitation of storm water drainage systems in flood prone districts of Gampaha, Colombo, Kalutara, Galle, Matara, Puttalam, Batticaloa, Ampara, and Hambantota.

A comprehensive flood management study for Kelani and Kalu Rivers has been completed with the assistance of JICA. Detailed designs are been done to minimise floods affects in the Kalutara urban area.

Context & Constraints:

The conflict in the Northern and Eastern Provinces affected the maintenance of drainage systems leading to massive floods in the two provinces.

Negligence in maintaining the existing drainage systems.

Insufficient awareness and finances affect the implementation of rehabilitation of affected districts to a large extent.

Weak enforcement of laws and regulations regarding the preservation of the flood retention areas and wetlands has aggravated flooding in urban areas.

Weak enforcement of laws and regulation in land use practices.

Low priority given by the Government for paddy cultivation in the last decade, especially in the Western Province has deviated farmers from paddy cultivation leading to inadequate maintenance of the canal system, which resulted in major local floods in the province.

High intense rainfall experienced during the last few years led to flash floods in urban cities.

Syrian Arab Republic (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

There is a commitment to apply the Syrian Arab Seismic code, and work is undergoing to develop the seismic code through studies and scientific research in this field.

Context & Constraints:

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Thailand (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

Is there investment to reduce the risk of vulnerable urban settlements?

-- Nothing reported within this timeframe. --

Means of Verification:

- * No: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

Department of Public Works and City&Town Planning (DPT), Ministry of Interior as the major national agency responsible for settlement planning and building code has formulated Ministerial Regulation for building construction resistant to earthquake. This framework has identify 3 earthquake risk zones; namely, monitoring zone, risk zone 1, and risk zone 2, which cover 22 provinces. This law is enacted on 30 November 2007. Ministry of Interior, therefore, ordered local officers to strictly enforce building construction in risk zones. In case the province does not have specialized officers, that province can request personnel support from DPT provincial office. Additionally, DPT developed standards for building design for earthquake resistance, which are published in DPT Website and manuals for concerned agencies

Context & Constraints:

Building owners are not aware of risks relating to earthquake and building construction. They usually do not follow the law.

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

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

This process takes place in the form of compensations at the time and after of the incident occurrence. There is no study before the incident occurrence to prevent its taking place or to reduce it, for example, as it happened in the village of Althafeer, in Sana'a governorate.

Population growth and expanding economy create competitive uses of land and tension between the multiple interests, and the sustainable use of land means finding a balance that reaps the major benefits of the social and economic development and at the same time protects and enhances the environment. The appropriate management of the land is necessary to protect the biodiversity, sustainable land-use, property protection. Rights of local communities are essential part of the process of access to sustainable uses of the land. There is little progress in the management of seismic and volcanic risks in terms of plans or policies. It is needed to a desire and support to continue this approach.

UNDP supports early recovery in Hadramout governorate after The Flash Floods of Hadramout.

Some small scale investment in to improve flood management are taking place. These efforts are being supported by the international community through the development of feasibility studies for the feasibility of alternatives to mitigate flood risk through water management in Hadramout and Al Mahra governorates

Context & Constraints:

Financial constraints.

- The absence of legislations, policies, plans and studies in this aspect.

It is recommended to provide financial allocations, issue legislations, policies, financing the work of research studies in this aspect, and coordinating the efforts of the central and local administrations on implementing and monitoring the plans or policies in this area.

The main environmental challenges in Yemen are the high salinity levels, the increase of logging for firewood, unjust grazing, the increasing erosion of soil from wind and water, and the deterioration of traditional systems in agricultural practices.

The land-lease arrangements, which are among the causes of soil erosion, are not conducive to increase

production. Other factors include; the irrational use of irrigation water in the irrigating areas , the weak agricultural guidance and the limited research returns. The result is the low productivity of land and livestock alike, which accelerates the pace of poverty and, consequently, the migration from rural areas to urban centers.

Europe

Armenia (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology
- * Yes: Provision of safe land for low income households and communities

Description:

Practically, after the Spitak earthquake in 1988, 80% of cities and towns of the republic gained new master plans of development. Each master plan included plans for land use, conducted inventory valuation and zoning on the degree of hazard and risk assessment of building, economic and social development. Each master plan provided a scheme of engineering protection of the built and the planned development of territories, taking into account the geodynamic and seismic conditions.

Key issues and means of verification for reducing the risk of urban areas

1 Significant investments are done by Government in the areas at risk of inundation (flooding) on the high waters and floods.

In particular, in the northern regions of the country (Aragatsotn, Shirak, Lori, Tavush region), where in the last decade, due to adverse changes in meteorological conditions, flooding of large territories is recorded. Monitoring controls of risk assessment of possible flooding in potentially hazardous areas are organized. Arrangements are made in advance to strengthen the river banks and clearing channels and channels of water-transportation systems. The possibility of regulating reservoirs, the state of stability and reliability of spillway structures, including drainage systems are evaluated.

It is necessary to note the investment support of national and foreign partners of joint research on risk assessment and engineering measures to stabilize the process of flooding of populated areas and territories swamping of Ararat marz.

Due to the significant rise of ground water level, flooding and drainage strain 176 settlements of 227 were flooded, making the life of population difficult and damaging large territories of agriculture.

Swamping created a threat of malaria, a number of diseases of the population. It should be noted that the risks of flooding and inundation areas of the Republic is often directly related to the uncorrected and exit the operation of drainage and water-transportation structures (canals and pipes). In addition to the significant loss of strategically important volumes of water, thus the water-leak causes flooding and underflooding, the wet soil areas and enhancing synergies dangerous exogenous processes (landslides, erosion, debris flows), leading to desertification in and out of agricultural use of large areas and is fraught with social and economic risks.

2 Slope stabilization in areas prone to landslide risk

Thanks to the work of the Ministry of Urban Development, in partnership with NEC, "geo" and the Japanese research group, Yusa, (2004-2006.), which was noted earlier, inventory estimate of landslide

local sites was held (2500 sites), with recommendations for monitoring and control engineering protection and prevent dangerous to activate them. National Research Group ("Georisk", "Geocom" PAS MOE RA, private companies, Inzhproekt, ArmNIIiZS Ministry of Urban Development), using national and international experience leading a risk assessment of landslides on the revitalization of local areas, with development of engineering protection measures, positive-valued independent examination. Experts, the above institutional arrangements, through collaboration often holds a commission survey, giving an expert evaluation of slope stability, erosion of material accumulation and the factors contributing to the revitalization.

3. Training Builders on technologies of safe construction

According to the above-mentioned International Program for the joint research organizations of CIS countries on prevention and emergency response for the period up to 2015 national institutional organizations of the Program developed a number of innovative and investment programs and projects in the assessment of the existing building stock and new construction in the aspect of the most reliable foundation.

- "Development of national innovation and investment projects and programs for solving problems of quality construction and prevent their deformation in a refined seismic activity in the republic" - the Ministry of Urban Development, IGN NAS, SNCO NSSP RA MOE, "Georisk" (paragraph 2.3 of the Program 2005 - 2011).

In 1994 and 1997. in the republic SNIP II 2.02 94 to earthquake engineering was developed and published, it was distributed to meet the standards for design and construction of a new seismic conditions, available for each design and construction organizations.

During 2005-2007, Ministry of Urban Development implemented a Programme project to assess the impact of natural and man-made disaster on the activities of urban and safety certification (paragraph 2.5.4 of International Programs - 2007), which held improvement of Methodical instructions "Investigation of the technical condition of residential and public buildings ", " Certification of buildings and structures - the security certificate" and "Regulations on the studies of industrial buildings and facilities, including engineering protection from the manifestation of dangerous natural and man-made processes".

POAK MOE NSSP RA in their daily activities shall assess the dynamic characteristics of buildings and their seismic resistance. As a result of these studies recommendations were presented to improve service reliability by strengthening structures (program item 2.5.3).

In each of the construction companies service of expert assessment of quality of construction operates, each project is thoroughly examined. A supervision of the erecting structures is conducted. Any violation of the design is evaluated by the building inspection and independent examination.

Training of the builders on innovative methods of safe construction of buildings and structures is carried out by technical units of the relevant ministries and agencies.

4 Monitoring the provision of safe land to any groups, implemented by the state inventory position to detailed information on the quality characteristics, allocated for the construction of development sites, and local - municipal services, provincial chief architect, according to master plans.

Context & Constraints:

One of the common problems arising in the resettlement of victims of natural and man-made processes, living in dangerous or deformed buildings is insufficient and inadequate government payments for new safe areas. Allocated funds are barely enough for superficial improvements, but it does not solve the problem of safety provision.

Bulgaria (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

-- Nothing reported within this timeframe. --

Means of Verification:

- * No: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

With regard to the territorial and urban planning measures, a Regulation have been drawn up. It is being updated and coordinated among all relevant ministries and structures and is to be adopted by Council of ministers soon. This regulation should solve the difficult problems concerning the urbanization and land use.

Context & Constraints:

building up of a unitary data base on territorial construction and passportization of the buildings.

Important problem for DRR to be sloved:

- use of modern construction technologies and requirements regarding the urbanization of the earthquake-prone regions ;
- keeping of the urban measures as far as it concerns conducting of emergency rescue and recovery works in case of building collapse, making of protective facilities and adjustment of underground garages and metrostations into protective facilities.

Czech Republic (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

Some investments have been realized with financial support from special EU programs.

Context & Constraints:

Realization of such projects and programs strongly depends on current regional and local authorities. In some areas a great success can be seen while in other ones such projects have not been launched yet.

Finland (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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology
- * Yes: Provision of safe land for low income households and communities

Description:

Finnish legislation on land use and building defines quality requirements for residential environments and the spatial structure of communities. Good residential environments must be healthy, safe, pleasant, and socially functional. The environmental administration provides valuable information on the significance of environmental quality for residents, and also helps local authorities to adopt participatory planning procedures. Built-up areas in Finland typically use much more land per inhabitant than built-up areas in other western countries, or even in the other Nordic countries. One strategic aim of the environmental administration is to integrate the spatial structure of communities better, in order to reduce traffic and emissions, and to improve the aesthetic aspects and functioning of communities.

Revised national land use guidelines take storms, heavy rainfall and floods into account more in detail than previously. In addition, responsibilities and management of stormwater and drainage will be further developed in the near future.

Context & Constraints:

Natural hazards such as storms, heavy rainfall and flooding have not been addressed in national land use guidelines in great detail. This has changed in the recent revision of the guidelines. In addition, a need for development of responsibilities and management of stormwater and drainage has been identified.

Germany (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

The German building law consists of two parts: the private building law under the “Baugesetzbuch” (BauGB) and the public building law which consists again of two extra parts, the “Bauplanungsrecht” under the BauGB and “Raumplanungsgesetz” (RPG), as well as the “Bauordnungsrecht” under the building laws of the Federal States aligned with the national sample building law (“Muster-Bauordnung and “Muster-Industriebaurichtlinie”) (see links below for an overview). For example, paragraph 1, article 5 of BauGB states that it should serve to protect and develop the human environment and natural resources, also responsible for general climate protection. For the spatial and land use planning of the “Regional Planning Act” (Raumordnungsgesetz: ROG), the draft for a new version from July 2008 includes the protection of critical infrastructure and civil protection. The urban land use planning (“Bauleitplanung”) considers civil protection as one of the main objectives in paragraph 1, article 6. Under paragraph 50 of the “Bundesimmissionsschutzgesetz” (BImSchG: see link), land use planning is to be regulated in a way that casualties and disasters in industrial areas do not affect residential areas.

Nationwide legislation refers to norms such as DIN, which are flexible to adapt to changing situations. DIN 1055 regulates the national requirement for the strength of buildings in handling wind and snow, depending on the location. Regarding earthquake safety in Germany for regular buildings the national earthquake building code DIN 4149 (from April 2004) has to be regarded. The national committee for the earthquake building code has prepared a national annex for the European building code EUROCODE 8, that is in the process of becoming a national regulation. For industrial facilities a national code does not exist, but a new regulation how to design these facilities against earthquake loads has been presented in 2009 and is already applied in some test studies.

For dams, the national building code DIN 19700 (from July 2004) provides the legal basis, which claims lower recurrence periods and higher safety standards for design earthquakes.

In general, the Federal States are responsible for regulations regarding DRR in their specific “Bauordnungsrecht”. For flood preparedness, local communities are responsible. They use the expertise of consultants to identify building areas or flood protection plains. The builder/owner of a private building is responsible for its own safety against floods, thereby necessitating private precaution through architectural means as well as insurance. The already mentioned ORTIS attempts here to establish a multi-risk disaster management system at the local level to help communities and private citizens plan their DRR.

Settlement planning and construction specifications are relevant for the German development cooperation especially within the scope of rehabilitation and reconstruction (see next Core Indicator). The GTZ, for example, has developed a guide for building activities after disasters and conflict (see annex in the next Core Indicator). Construction plans within the scope of financial cooperation consider DRR systematically.

Context & Constraints:

The German building codes provide assurance for the most dangerous hazards through norms for wind, snow and earthquakes, but this is not enough. In the case of earthquake norms, for example, there is currently no existing standard for industrial facilities, but is being discussed. The German scientific community continuously reminds us that stronger legislation for DRR is needed.

The principle of subsidiarity has to be strengthened at the community level, especially the dimension of private precaution through better clarification of possible dangers and sensitization to individual responsibilities. The builders and scientific researchers take this a step further and have developed safer building techniques and are constantly exploring new possibilities. The main challenge is to persuade the builders that this is necessary.

GRC was getting active in human settlement planning for example after the Tsunami 2004 and incorporating DRR elements, such as earthquake and flood resistant housing, livelihood support, DRR trainings to communities is playing a major role in GRC reconstruction processes (building back better).

Related links:

BImSchG <http://www.gesetze-im-internet.de/bimschg/index.html>

Bau- und Planungsrecht <http://www.umwelt-online.de/recht/bau/uetete.htm>

Baurecht <http://www.baurecht.de/>

Overview Building Law <http://www.bauordnungen.de/html/deutschland.html>

Italy (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

Planning and regulation of human settlements are carried out by the Regional and the Municipal Administrations according to the applicable law and to the framework policies provided by the relevant ministries (Ministry of Environment, Land Protection and Sea, Ministry of Infrastructures etc.). Disaster Risk Reduction elements and considerations are already included into this process. A number of initiatives have also been undertaken to improve the overall planning, implementation and enforcement capabilities

Context & Constraints:

The main issue in this field refers to the weak enforcement capability in some areas of the Country. Implementing building codes in Italy is a difficult task, also due to the presence of a wide number of historical buildings, belonging to the National cultural heritage, not complying with today's building

standards. The efforts made over the last years to develop a comprehensive National Disaster Risk Reduction policy, will provide the means for further strengthening cooperation in this field.

Norway (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

The new plan and building act ensures that disaster risk reduction is an integral objective of environment related policies and plans, including for land use, natural resource management and adaptation to climate change. The Water Resources and Energy Directorate (NVE) has an overall coordinating role for prevention of floods and landslides/avalanches and can give directives and support to land owners, dam owners, etc. to take the necessary steps to prevent serious events.

Context & Constraints:

-

Poland (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology

* Yes: Provision of safe land for low income households and communities

Description:

Some investments have been realized in the past. New developments are coming very slowly due to financial problems and long lasting EIA procedures. From the planning point of view flood risk zones are incorporated into local planning

Context & Constraints:

The final decision related to flood zone incorporation into local plan is taken by local government. Sometimes such decisions are difficult to make because of political or economical reasons (for example after such decision the value of endangered terrain within flood zone is falling)

Romania (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

Is there investment to reduce the risk of vulnerable urban settlements?

-- Nothing reported within this timeframe. --

Means of Verification:

- * No: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

A rehabilitation program for the high earthquake risk buildings is put in place. The authorities pay subsidies to owners in order to partially cover the expenses, such as expertise fee, project cost and long-term interest on the loans. The owners and the owners associations are legally obliged to take measures in order to reduce the seismic risk of their buildings.

The seismic design of building structures is in compliance with the European building codes and land use policy takes into account the specific risks and hazards.

Context & Constraints:

Most of the high earthquake risk buildings in Romania are at least 70 years old and they were not designed to withstand major earthquakes.

The owners and the owners associations are not aware of how important the high earthquake risk buildings' rehabilitation is. Most of the times, because the building brings profit, the owners would rather repair it than reinforce it. They neglect, postpone or can not afford major adjustments

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

Funding for preventive measures against natural disasters is provided by MSB. For this the Swedish Geotechnical Institute and other consultants provide technical expertise.

The National Board of Housing, Building and Planning has produced publications on the following topics: building safely in a changing climate, security measures in city planning, flood issues in planning, and landslides hazards in land use planning.

The County Administrative Boards works with local governments in the process of city planning, where one of the topics discussed is resilience and disaster risk reduction within new exploitation areas. The County Administrative Boards has the authority and does act against unsuitable development plans.

Context & Constraints:

Financial resources and guidance for the prevention of erosion is lacking. There is a need for such financial support to the municipalities.

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas

- * Yes: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

The Federal Law on Land Use Planning (22.6.1979) asks for the identification of hazard-prone areas. The Federal Law on Forests (4.10.1991) and the Federal Law on River Training (21.6.1991) claim the elaboration of hazard maps and their consideration in land-use planning at Cantonal and municipal level. Hazard mapping and respective application in land-use planning is still in process. Building codes exist and are applied. However, due consideration has only been given recently to the seismic hazard, and therefore there are gaps in seismic resilience for buildings built before modern constructions standards came into effect (in 1989).

Context & Constraints:

The completion of the hazard mapping and their full consideration in municipal land-use planning is of foremost priority. Remedying the poor earthquake resistance of many existing buildings will be a major challenge over the next years.

The former Yugoslav Rep of Macedonia (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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

There are systematic, appropriate processes and legal frameworks that define the construction procedures and standards regarding the seismic activities, especially in the aftermath of the great Earthquake of 1963. Following independence, the quality of building construction had declined due to the decrease of the economic potentials, the privatization of the large construction companies as well as the weakening of the control system. In recent years, there is greater control in terms of enforcement of building codes, especially public buildings.

In order to achieve earthquake risk reduction, based on the proposals of the Ministry of Transport and

Communications, the Government is currently amending the legislation by making seismic project compulsory for any future buildings, thus strengthening the building codes.

There is a legal framework and certain achievements in terms of flood prevention by the construction of proper protection facilities (dams, river banks etc.), as well as planning of preventive measures. Although landslides related issues are not regulated by a special law, they are addressed in the Law on spatial and urban planning. The landslides and floods prone areas are excluded from urbanization by the plans for urban planning in order to minimize the damages.

In order to improve the process of planning and managing of human settlements by incorporating DRR elements, a intersectoral network of state inspectorates headed by the Inspection Council of the NPDRR, was established. The Inspection Council was set up to further effective inspectoral supervision within the framework of the NPDRR.

In order to achieve earthquake risk reduction, based on the proposals of the Ministry of Transport and Communications, the Government is currently amending the legislation by making seismic project compulsory for any future buildings, thus strengthening the building codes.

The principles and activities are included and implemented through the national, regional and local Spatial Plans.

Context & Constraints:

Although there are systematic, appropriate processes and legal frameworks that define the construction procedures and standards regarding the seismic activities, in the last two decades, the quality of building construction has declined due to the decrease of the economic potentials, the privatization of the large construction companies as well as the weakening of the control system. The Inspection network, headed by the Inspectoral Council should be the correction tool that will improve the process of planning and managing of human settlements by incorporating DRR.

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * No: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

Planning and management of human settlements including land-use planning and building construction standards are responsibilities of State, Territory and local governments, with a number of non-government organisations also playing important roles. Examples of recent work in this field include:

- in one State, local government is working with the State's fire authority to decide which assets are most at risk from bushfire and what needs to be done to protect them. The risk register uses 'cutting edge' mapping software with local knowledge to quantify and visualise vulnerabilities. Mitigation treatments can then be considered.

- the Australian Building Codes Board (www.abcb.gov.au) is a joint initiative of all levels of government in Australia, with the building industry. It promotes efficiency in the design, construction and performance of buildings through the national Building Code of Australia. Since 2009 it finalised and adopted a new and more effective standard for the design and construction of residential buildings in bushfire prone areas and developed a national Performance Standard for the design and construction of private bushfire shelters.

Australia's building code requires residential buildings in designated bushfire-prone areas to be constructed to reduce the risk of ignition from a bushfire while the fire front passes. Measures are prescribed for assessing the level of bushfire attack and for the design and construction of buildings in order to improve their resistance to ember attack, radiant heat or flame generated by a bushfire.

In the land-use planning arena, Geoscience Australia is supporting the Government's Climate Change Adaptation Program through a continual process to support Australian coastal vulnerability assessments. This includes second-phase, higher-resolution case studies in selected areas and improved access to Geoscience Australia's National Exposure Information System. The organisation's capability in natural hazard risk assessments also informs the development of building codes.

Context & Constraints:

Though the primary responsibility for the effective planning and management of human settlements rests

with the State or Territory government in which the settlement is located, the Australian Government contributes indirectly through a number of its programs.

One example is CIPMA (described above) which has commenced work to enable the provision of insights regarding the vulnerability and resilience of electricity transmission lines and dependent communities to extreme heatwaves and bushfires.

CIPMA will examine impacts of extreme weather events and provide strategic analysis into disruptions to essential services. This will assist owners and operators of critical infrastructure assets to better understand the costs and benefits of adaptation to climate change, as well as where and how much to invest in adaptation schemes. CIPMA is committed to engaging with key industry stakeholders to help ensure that the owners and operators of critical infrastructure are better prepared for the risks that climate change presents.

Cook Islands (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

The Ministry of Infrastructure and Planning (MOIP) is pursuing a review for the Building Control Act 1991 through ADB/TA, expected to improve the application and enforcement of building codes. The MOIP is committed to ensuring the inclusion of hazard and risk assessments in the new policy and legislation. The ministry has also agreed to form a new division to focus on sanitation issues.

MOIP is also responsible for energy issues, and has progressed in reducing risks associated with energy supply in some Outer Islands. Progress has been made in Mangaia, and capacity-strengthening is in the pipeline for Mitiaro and Mauke. The fuel depot in Atiu is being completely rebuilt to reduce exposure risk to poorly located fuel depots and power stations, but there have been difficulties in ensuring compliance with regulations.

The Mangaia Harbour project incorporating DRR and CCA requirements is an example of successful mainstreaming. The revised harbour design includes additional steel pilings and concrete, to strengthen its resistance to extreme weather events, and discussion is currently underway on how to strengthen the resilience of the foreshore area.

In the water sector, studies are underway into various aspects of water resource protection. These include water quality monitoring and investigations into sanitation options, with the support of the EU, NZAID and the GEF. Whilst the NAP (under this Goal) focuses on Energy, Tourism and Agriculture, the NAP Advisory Committee deliberately did not cover other important sectors, such as Water, in the planning process, as there were already initiatives in place to address these. The NAP focused only on addressing 'gaps'.

Achievements in infrastructure in the education sector include the establishment of clear health and safety standards through the School Manual, which all principals are expected to implement. Standards apply both to new buildings and to old ones.

Context & Constraints:

Compliance with the building code for house construction is reportedly weak, particularly in the Outer Islands where government inspectors visit only infrequently. Relocation strategies for people living close to potential hazards (such as fuel storage facilities) are complicated by the difficulty of acquiring land, given strong traditional land tenure systems and limited government resources for land purchase.

Fiji (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * Yes: Slope stabilisation in landslide prone areas
- * Yes: Training of masons on safe construction technology
- * Yes: Provision of safe land for low income households and communities

Description:

Recent years have witnessed big growth in squatter settlement. The government has a two-pronged approach on human settlement promoting new housing settlement schemes as well as addressing squatter housing issues.

Squatter settlements spring up as unplanned development and government is putting in place policies to regularise them. These include subdivision of squatter settlements into house lots where feasible and/or financial assistance to relocate tenants to new housing development schemes. NGOs and FBOs are also active amongst squatter community in setting up organisational structures, and providing support on basic food and health issues, religion and education, livelihood with microfinancing, and housing.

Building codes are useful only in legal subdivisions, for engineered houses and for houses built outside of village settlements. The code includes good design provisions for earthquake and cyclone risks. For non-engineered houses the code has an accompanying Building Manual targeted at village carpenters. Recently another Carpenters Masonry Manual has been developed. Both manuals need to be promoted.

In the construction sector, approval processes under the Health Act and the EIA legislation ensure that sub divisional plans and all constructions meet approved design standards which incorporate DRR measures. Some urban centres are ahead of others in conducting urban risk assessments such as in Nadi; Suva has the Suva Earthquake Risk Management Project, and SOPAC with ADB support is undertaking hazard, vulnerability, exposure mapping programme along the Nausori-Suva- Nadi corridor.

In the agriculture sector where sugar cane is a major economic crop, drainage schemes exist but lack of maintenance is a major issue. And at the community level government actively assists village and settlements in construction of seawalls; slope stabilisation projects either using rock piling and/or gabion baskets; and is committed to promoting proper land use planning and management.

Context & Constraints:

Adverse population growth trend around the urban centres is imposing pressures in the housing and essential services sectors. It also indicates a growth in number of localities of highly vulnerable communities. The impact of new education policy on zoning may not be apparent for a number of years still as urban drift will continue in the search of employment opportunities. Efforts need to continue that address reduction of underlying risk from growth in uncontrolled human settlement.

Housing providers need to agree on an outline for minimum housing standards on designs that are affordable and safe. Much awareness raising, training of carpenters and community support from government in partnership with NGOs and FBOs is needed to enable the poor in these communities to build houses that meet minimum standards. In amongst the squatters are unscrupulous landlords for which legal redress is needed to curb exploitation of the poor.

In legal and village settlements, the gaps in code enforcement need to be addressed strongly by authorities eg for villages in urban and rural areas there is limited policy coverage. The support of Health as the housing approval authority and Provincial administration are needed to enact this policy further.

Marshall Islands (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

No

Means of Verification:

- * No: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

The multi-stakeholder workshop in November 2010, part of the NAP progress review, revealed the widely different views of the participants on building codes and zoning. Some stakeholders were unaware of the

existence of building codes, while others understood them as general guidelines for development. An underlying level of awareness of what building codes and zoning means, and why these practices are important, is desperately needed.. Furthermore, a consistent message from various sectors (e.g. Public Works, EPA, the private sector) on what building codes are, why they are important, and how they are enforced is needed, especially given the high rates of urbanization and development in Majuro and Ebeye.

Inadequate management of rapid urbanization has led to densely populated and poorly planned settlements, often containing structurally deficient buildings. The potential for fires is exacerbated by the high use of kerosene (43% of households) and charcoal/wood (20% of households) and fire can spread rapidly from house to house. A lack of adequate settlement planning and management means that emergency access lanes often do not exist for fire trucks. A lack of fire and accident preparedness is equally evident in the commercial and industrial areas.

The importance for awareness of the links between zoning and vulnerability to disasters must be successfully conveyed at the community level especially amongst the land owners since they determine how development proceeds at the local level. An ongoing awareness campaign in Marshallese is desperately needed to overcome this challenge. A collaborative effort is required between national and local level decision makers on the issue of building practices to deliver a consistent message. As was eloquently stated by an interviewee, “The government has no say in traditional land issues – we need to merge the two levels of authority and raise the understanding of development issues with traditional leaders.”

Context & Constraints:

High population growth driven by a high birth rate and migration from outer islands increases the vulnerability of urban centres including Majuro and Ebeye. Additional pressures are placed on access to water, food and energy as well as living space. There is currently a lack of a managed approach to development of human settlements, and lack of awareness of the links between zoning, development and vulnerability to disasters.

To properly enforce building codes, engineers are required. There is a clear lack in the number of suitably qualified engineers and architects to properly support this core indicator. Similarly, the Ministry of Public Works also lacks technical capacity, admitting that there is limited engineering and architectural capacity in country. Public Works lack the capacity to ensure building codes are followed and were unsure if the private sector was adhering to guidelines.

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

* Yes: Investment in drainage infrastructure in flood prone areas

* Yes: Slope stabilisation in landslide prone areas

* Yes: Training of masons on safe construction technology

* Yes: Provision of safe land for low income households and communities

Description:

At the local level, the Resource Management Act requires addressing natural hazards in the context of managing the use and development of land. Local authorities are to plan to avoid, mitigate or remedy adverse effects of land development that includes risks of creating or adding to natural hazard exposure (and any changes resulting from climate change).

A revised National Coastal Policy Statement 2010, under the Resource Management Act, provides additional policy direction to local authorities in managing land use and development within coastal areas, including to mitigate the risks of hazards.

The Building Act 2004 establishes a national building code and regulations, with compliance managed by certified persons. All new buildings and renovations are to meet current code, and commercial and multi-resident buildings are also generally required to have additional compliance schedules and undergo a regular 'warrant of fitness'. Building products are also required to meet 'fit for purpose' standards.

Context & Constraints:

New building techniques and materials, and changes in performance code requirements and certification processes led to building quality issues for a period from the mid-1990s. In 2004 the Building Act was revised, along with the establishment of a new Department of Building and Housing, though concerns subsequently arose that the process was too costly and slow. The Act is now undergoing further review that proposes more clearly defined processes commensurate to the level of risk and liability involved.

Samoa (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

* Yes: Investment in drainage infrastructure in flood prone areas

* No: Slope stabilisation in landslide prone areas

* Yes: Training of masons on safe construction technology

* Yes: Provision of safe land for low income households and communities

Description:

Government provides safe land located inland and outside identified hazard zones to low income households. Through the Samoa Land Corporation (SLC) land has been developed in Nuu, Falelauniu,

and Vaitele, this is to also assist in alleviating population settlements in the Apia area. Protection measures include drainage and sanitation project (Savalalo) and river bank protection for rivers and streams surrounding the greater Apia urban area (Gasegase stream, Sinamoga stream, etc.) For all projects which protect people and infrastructure, there is a need to ensure proper planning mechanisms are in place. The absence of which is either creating new problems or exacerbating existing ones. A planning process which predicts the consequences of the development and encompasses a 'build once' policy (e.g. newly tarsealed roads dug up to lay down water pipes, etc) will help to ensure effective rationalisation of limited national resources.

Context & Constraints:

Existing infrastructural systems need improvement, where coordination mechanisms within all infrastructural building plans to mitigate potential hazards need to be strengthened, as well as improving implementation of building standards. Although a national building code exists, there is currently no valid mechanism to ensure compliance and code enforcement. This process requires decision-making, leadership, time, funding and particularly buy-in from end users in order to set up appropriate machinery and overcome the natural resistance from the construction sector and building owners. This may be assisted in the provision of adequate training and awareness among the engineers, architects, construction companies and local builders, on building standards and requirements and disaster resistant technology and its benefits.

Enforcement of development regulations is especially difficult to monitor with regards to customary lands. About 80% of land in Samoa is customary and while customary tenure guarantees ownership rights to all Samoans, it is often very difficult for development purposes, to get agreement from all different parties involved at any one time. When customary land is affected by any form of development, disputes will invariably arise delaying progress, sometimes for extended periods of time. While knowledge of customary land boundaries is handed down by word of mouth ownership is often uncertain or disputed. Another constraint in terms of relocation (i.e., displaced families following the tsunami) normally occurs when a family does not own land inland or when the head of the extended family denies access to the land, families may be forced to leave the village.

The increasing demand for freehold land would seem to indicate that customary lands are not meeting people's needs.

Solomon Islands (in English)

Level of Progress achieved:

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

Is there investment to reduce the risk of vulnerable urban settlements?

No

Means of Verification:

* No: Investment in drainage infrastructure in flood prone areas

* No: Slope stabilisation in landslide prone areas

* No: Training of masons on safe construction technology

* No: Provision of safe land for low income households and communities

Description:

Rapid urbanisation and growing informal/squatter settlements indicates that there is a large, highly vulnerable population in Honiara. Informal settlements do not have access to basic services and receive no support to improve drainage thus flooding remains a problem. There is little/no consideration of disaster risk in informal settlements. There is currently no resettlement policy but the government is working on a plan to provide fixed term estates to settlers.

There is no zoning of land for commercial/human settlement. Planning does not incorporate hazard information and has resulted in poorly designed drainage systems. There are no slope stabilization projects. Building codes are weak and poorly enforced. It was stated during the multi-stakeholder workshop that the World Bank were not required to carry out risk assessments for some of their infrastructure projects in Honiara, Auki, Gizo, Munda, and Noro, thus none were conducted.

Context & Constraints:

There is a lack of forward planning in terms of rapid urbanisation, although it is felt that recognition on the need for this is growing. A lack of political will has led to slow progress. It is important to identify key community leaders located in informal settlements in order to promote proper land use planning that includes DRM considerations.

The Ministry of Lands recognises its important role in DRR but requires training to support technical staff; and upgrading of equipment in order to fulfil its obligations. The Ministry of Lands corporate plan includes recommendations for land use planning but this document is awaiting endorsement by the SI government. It is hoped that DRM considerations will be strengthened after the plan is endorsed.

Development of a land use policy is required and should include DRR considerations. It was highlighted that SPC will be approached to request their support in developing a policy. Establishment and enforcement of building codes is necessary. Environmental Impact Assessments (EIA's) need to be more rigorously conducted and monitored.

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

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

Is there investment to reduce the risk of vulnerable urban settlements?

Yes

Means of Verification:

- * Yes: Investment in drainage infrastructure in flood prone areas
- * No: Slope stabilisation in landslide prone areas
- * No: Training of masons on safe construction technology
- * No: Provision of safe land for low income households and communities

Description:

Enforcement of building and planning codes remains a major challenge (e.g. Building Code has been in draft form for 10 years). Due to resource constraints, NDRMO engagement with the private sector in this area is also very limited. Recent developments indicated that the Ministry of Internal Affairs along with the Ministry of Lands and Natural Resources are looking to review the document to make it more practical and enforceable within existing capacity.

Investment to reduce the risk of vulnerable urban settlements is not systematic, albeit the Port Vila Urban Development Masterplan touches on this in regards to improved drainage for the most flood-prone areas (recommended 6 locations). Also AusAID infrastructure projects are climate proofing investments for increased resilience to climate change.

While much work has been carried out in recent years under the Vanuatu Short Term Land Reform Initiative with zoning and development control documents for Luganville and Port Vila completed, they remain to be gazetted and tried on the ground.

Context & Constraints:

Urban risk assessments are not conducted at this time although it is anticipated that this will be raised in the proposed Vanuatu urban profiling exercise which will be supported by CLGF in 2011 utilising UN-HABITAT rapid urban sector profiling tools.

More concerted efforts could be made in initiating more frequent consultations between national steering committees to capture windows of opportunity in programmes and projects such as the preparatory phase of the Port Vila Urban Development Masterplan project (ADB) and the Cities and Climate Change Initiative in Port Vila (UN-HABITAT).

A stronger emphasis on the inclusion of “local councils and urban communities” would benefit the mainstreaming of DRR in the urban sector.
