

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

## HFA Priority 4, core indicator 4.6:

*Procedures are in place to assess the disaster risk impacts of major development projects, especially infrastructure.*

### Know the Risks and Take Action

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

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This report compiles inputs by Hyogo Framework for Action (HFA) priority for action 4.6 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/>

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An HFA Monitor update published by PreventionWeb

# Africa

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## Algeria (in French)

### Level of Progress achieved:

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

### Are the impacts of major development projects on disaster risk assessed?

Yes

### Means of Verification:

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### Description:

L'ensemble des projets de développement sont soumis à la procédure d'études d'impact préalable. Ceci est valable pour l'ensemble des projets, qu'ils soient à vocation sociale, économique ou culturelle.

Cependant, au plan pratique, la Caisse nationale de l'équipement et du développement (CNED) ne possèdent pas toutes les capacités requises pour assurer des opérations de suivi et de contrôle qui nécessitent des qualifications appropriées.

Par ailleurs, et au vu de l'importance des enjeux, le gouvernement s'efforce, en application de la loi 04-20, d'intégrer des procédures d'évaluation de l'impact des actions de réduction des risques de catastrophes accompagnant les différents projets de développement.

Les projets d'établissements classés (activité industrielle) sont soumis à une étude de danger (plus de 1000 études déjà réalisées) et une étude d'impact (plus de 1600 études déjà réalisées) préalables à la délivrance de l'autorisation d'exploitation.

Au titre des procédures mises en place pour évaluer les impacts d'un risque de catastrophe sur les infrastructures hydrauliques, on peut citer :

- les mesures préventives par la protection des zones d'emprise soumises à une servitude d'utilité publique par l'interdiction de toute construction ou implantation (conformément à la loi 05-12 du 04 août 2005 relative à l'eau).
- l'inclusion dans les études de barrages hydrauliques d'une note d'évaluation d'impact en cas de rupture.

La politique de développement forestier menée prend en compte la réduction du risque « feux de forêts ». Les réalisations accomplies ont largement contribué à la réduction de ce risque. Les aménagements effectués et les travaux sylvicoles menés au niveau de certaines forêts ont considérablement atténué l'impact du feu.

### Context & Constraints:

Pour faire face aux défis considérés, des actions de renforcement des capacités des administrations et organismes concernés par ces aspects sont nécessaires et sont en partie en cours de concrétisation.

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## Botswana (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

### Are the impacts of major development projects on disaster risk assessed?

Yes

### Means of Verification:

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### Description:

The process has just taken off since the recurrent floods in Okavango delta has made authorities aware about the infrastructures have been built in the flood prone areas.

### Context & Constraints:

Strengthening of the assessment tools and techniques are required

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## Burundi (in French)

### Level of Progress achieved:

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

### Are the impacts of major development projects on disaster risk assessed?

Yes

### Means of Verification:

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### Description:

Chaque projet de développement est sujet d'étude d'impact environnemental

### Context & Constraints:

L'étude d'impacts des projets est une activité assez récente au Burundi et ne concerne pas tous les projets

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## Cape Verde (in Spanish)

### Level of Progress achieved:

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

### Are the impacts of major development projects on disaster risk assessed?

-- Nothing reported within this timeframe. --

### Means of Verification:

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### Description:

O SNPC organizou a primeira formação em avaliação rápida de necessidades humanitárias, que contou com a participação de representantes das 22 Câmaras Municipais do País. Com esta formação, pretendeu-se fortalecer os repensáveis locais de protecção civil, em avaliação rápida de necessidades humanitárias e, fornecer-lhes uma ferramenta de auxílio no planeamento, gestão e execução das avaliações de emergência que sejam coerentes e credíveis. No sector da educação, o SNPC participou na Formação de formadores em Educação em Emergências, destinados aos professores do ensino básico, com o objectivo de lhes disponibilizar meios para realizarem uma melhor avaliação pós-catástrofes para o sector da educação.

Portanto, as equipas formadas terão a capacidade de avaliar os riscos no seu sector e também os riscos que podem provir da destruição de estruturas importantes tais como, estradas, pontes, taludes, que poderão por em risco as populações.

Desde da independência de Cabo Verde têm-se realizado obras de correcção torrencial e defesa contra fenómenos erosivos, muitos da responsabilidade do Ministério de Infraestruturas e transporte e do Ministério do Ambiente. Estas obras têm-se revelado de capital importância porque têm minimizado o efeito da chuva junto das populações e estruturas.

Em Cabo Verde, todas as intervenções que poderão causar qualquer alteração no ambiente, são sujeitas a um estudo de impacto ambiental (EIA), que posteriormente é sujeita a consulta pública antes da sua aprovação.

O Ministério de Infra-estruturas e Transportes, é o responsável pela aprovação, seguimento e construção das grandes obras em Cabo Verde. Os projectistas deste Ministério têm levado em consideração as questões do RRD e implementadas medidas de conservação destas estruturas.

### Context & Constraints:

Mesmo com os ganhos que tem havido neste sector ainda há necessidade de maior formação dos quadros que trabalham nesta área, mais sensibilização dos mesmos para a adopção de políticas que visem a implementação efectiva da RRD.

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## Comoros (in French)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

-- Nothing reported within this timeframe. --

**Means of Verification:**

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

Il n'y a pas de processus d'évaluation de l'impact des projets de réduction des risques de catastrophes.

**Context & Constraints:**

Le manque de réglementations et de lois adaptées à la gestion des risques de catastrophes est la contrainte majeure aujourd'hui pour encadrer les projets de développement.

L'évaluation de l'impact des projets mis en place est par ailleurs inexistante.

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**Cote d'Ivoire** (in French)**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

No

**Means of Verification:**

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

Le DSRP ne prend pas explicitement en compte l'intégration des mesures de réduction du risque dans les stratégies, plans et programmes de développement durable. La portée et les priorités des DSRP diffèrent d'un pays à un autre en fonction de l'environnement social, économique, financier, politique et matériel. L'évaluation de l'impact des projets sur le risque de catastrophes ne se fait pas. Par ailleurs la RRC n'est pas intégrée dans les études d'impacts environnementales et sociales.

**Context & Constraints:**

La RRC n'est pas l'objectif que visent les projets, cette notion étant nouvelle. Il importe, dans le futur, d'évaluer l'impact des projets sur le risque de catastrophes de façon systématique à travers notamment les études d'impacts environnementales et sociales.

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## Ghana (in English)

### Level of Progress achieved:

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

### Are the impacts of major development projects on disaster risk assessed?

Yes

### Means of Verification:

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### Description:

Various agencies exist to conduct impact assessment in different sectors and such organizations include EPA, Standard Board, Food and Drugs Board, Ministry of Health, Ministry of Water Resources, Works and Housing, Ministry of Roads and Highways, District Assemblies, Department of Sociology in the Universities etc.

The major procedure is to constitute task forces comprising the relevant organizations for the particular disaster impact assessment.

### Context & Constraints:

Ineffective proper coordination of agencies.

Inadequate capacities and skills especially at the local level

Inadequate resources to undertake timely damage / impact assessment.

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## Guinea-Bissau (in French)

### Level of Progress achieved:

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

### Are the impacts of major development projects on disaster risk assessed?

No

### Means of Verification:

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### 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.

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

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

In event of Disaster and emergency happenings there are elaborate procedures in place to assess the disaster risk impacts of major development projects like field visits, monitoring and evaluation, impact assessment on development infrastructure.

**Context & Constraints:**

Capacity at the National Environmental Management Authority is a challenge in terms of implementation and auditing.

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

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

**Are the impacts of major development projects on disaster risk assessed?**

No

**Means of Verification:**

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

Lack of expertise.

**Context & Constraints:**

Lack of expertise.

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## Madagascar (in French)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

Les textes régissant la GRC à Madagascar en parlent mais leur application effective est loin d'être acquise.

**Context & Constraints:**

Des plaidoyers doivent être menés auprès du Gouvernement pour exiger que se fassent des évaluations d'impact sur les risques et les catastrophes de tout projet de développement, comme cela se fait actuellement en matière d'environnement.

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## Malawi (in English)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

There is a requirement that EIAs be undertaken for all major development projects. This requirement ensures that there is an assessment of the disaster risk impacts of such major projects.

**Context & Constraints:**

Lack of adherence to findings of the EIAs. This could result in a development project contributing to disasters although the risks were identified in the EIA. The vulnerability of communities could, therefore, be increased. There is, therefore, need to strictly enforce findings of EIAs to avoid increasing vulnerability of communities.

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**Mauritius** (in English)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

There are general regulations that are taken into consideration, including disaster risk reduction measures in the development of major infrastructures. But no policy exists at national level.

**Context & Constraints:**

Relevant policies need to be promulgated

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**Morocco** (in French)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

Au Maroc, et depuis 2003, la réglementation exige que des études d'impact des grands projets soient effectuées avant leur réalisation. Aussi, la culture d'évaluation des incidences des grands projets de développement a commencé à s'installer au Maroc.

**Context & Constraints:**

La principale contrainte est surtout l'absence de bureaux d'études spécialisés dans la réalisation des études d'impact spécifiques aux risques, sans oublier également les incidences financières qui sont parfois importantes pour la réalisation des projets.

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## Mozambique (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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

The impacts of development projects on disaster risk are carefully integrated into national legislation, and strategies, namely, the Environmental Law, approved in 1997, and the Sustainable Development Strategy approved in 2007.

In order to avoid that development projects are sources of disaster risk

- The National authority for Clean Development Mechanism was created to support Climate Change Mitigation. This authority is composed by MICOA, the Ministry of Science and Technology and Eduardo Mondlane University experts.
- all development projects classed in category A, such as dams, industrial plans, hotels and resorts, irrigation schemes, are subject to EIA, which are approved by the Ministry for Coordination of Environmental Affairs (MICOA), with scientific and technical support of Eduardo Mondlane University, the main and oldest public university in Mozambique.
- Public consultation and debates have been held with all stakeholders, for the approval of large developments projects. Recent notable examples are:
  - In 2010, the Governemnt has approved the construction of the Mphanda Nkuwa Dam, which will start in 2011. In these context, the EPDA has been undertaken and approved. Currently, the EIA studies are ongoing. Public consultation is planned to be conducted in the second semester of 2011.
  - Several studies were carried out to demonstrate that the Mozambique Aluminum plant-Mozal, the largest industry plant in Mozambique, could be allowed to use bypass for 6 months without causing health problems to surrounding residents.
  - The design of several roads, railway and bridges has been revised to accommodate larger floodwater spillway capacity. Examples are:

- The newly rehabilitated Macarretane dam, road and railway system on Limpopo River, at Chókwe
- The N1 National Road along several floodplains-Incomati, Limpopo and Save
- The Limpopo Corridor-railway and road system connecting the Maputo port to Zimbabwe
- The newly built Armando Guebuza bridge on the Zambezi River

### **Context & Constraints:**

As a poor country, Mozambique faces enormous challenges to securely promote its development without creating conflicts between Government, environmentalists and developers. However, to achieve sustainable economic growth, Mozambique has no other options than:

- Investing in mechanized and irrigated agriculture, as up today, of total 36 million hectares of land, only 50 000 hectares are covered by irrigation schemes;
- Increase industrialization rate to promote employment: so far, above 70% of Mozambique population is employed in agriculture
- Building more sustainable dams for water storage and supply for irrigated agriculture schemes
- Building more electricity plants, including thermal ones for power supply to economic activities.

However, current weak technical and scientific capacity at Government, environmentalist's organizations and universities emerges as the critical challenge for future development particularly for wise decision-making for the establishment of large development projects and programs.

The most recent case was the construction of M'panda Nkuwa dam on the Zambezi River. Using comments from a South African expert, Mozambican environmentalists claimed that Mozambique should not build any new dam on the Zambezi River as it would trigger earthquakes and environmental problems at both upstream countries (Zimbabwe and Malawi) and downstream communities. However, South Africa and Zimbabwe rely on their 539 and 213 large dams, respectively, to secure water for agriculture production during dry periods. In turn, with only 8 large dams, Mozambique relies on South Africa for food imports.

Therefore, more technical capacity must be built at both sides so that misunderstandings and speculations are eliminated, and a sound debate on EIA atmosphere is created, and real risks are prevented or mitigated in a timely manner.

## **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

### **Are the impacts of major development projects on disaster risk assessed?**

Yes

### **Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### **Description:**

The Federal Ministry of Environment in Nigeria has the mandate to ensure that EIA is conducted for major projects. This has been in place for many years and the reports of such assessments are displayed,

discussed and shared.

**Context & Constraints:**

Environmental Impacts Assessments in Nigeria for major projects are comprehensively conducted. What is needed is continuous monitoring.

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**Senegal** (in French)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

Etude d'impact environnemental pour tout projet d'investissement de grande ampleur

**Context & Constraints:**

Problème de vulgarisation des résultats et de respect des dispositions de textes législatifs et réglementaires

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**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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

With no disaster management/emergency funds and a greater reliance on donor support, the national

disaster management programme tries to meet the minimum international requirement.

It is also mandatory for companies whose activities are closely linked with the environment to submit environment impact assessments (EIAs).

Disaster risk reduction is part of the pillars of the poverty reduction strategy paper (PRSP) and all development and social policies on WATSAN, agriculture etc incorporate disaster management as not to create a disaster during development.

**Context & Constraints:**

Challenges include the delay by mining companies to submit their EIAs on time, or the non compliance of certain companies.

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## Tanzania, United Rep of (in English)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

-- Nothing reported within this timeframe. --

**Means of Verification:**

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

All major infrastructure projects undergo an environmental and social impact assessment led by National Environmental Council. Disaster Management under its program on mainstreaming disaster risk reduction into development have identified roads, water, agriculture, education and health infrastructure services as priority sectors to initiate mainstreaming disaster risk reduction. Assessments carried out in these fields are in accordance with the corresponding sector and allied policies and legislations.

**Context & Constraints:**

Further coordination and collaboration is required with technical agencies responsible for producing hazard information related to natural disasters.

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## Zambia (in English)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

Procedures have been institutionalized in the following institutions/ministries: Ministry of Works and Supply, Road Development Agency, Ministry of Tourism, Environment and Natural Resources, Environmental Council of Zambia, Ministry of Energy and Water Development. All these enforce infrastructural laws and also carry out environmental impact assessments.

**Context & Constraints:**

Inadequate resources and operational capacities in most of the Ministries/Institutions.

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# Americas

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## 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

### Are the impacts of major development projects on disaster risk assessed?

Yes

### Means of Verification:

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### Description:

The Mitigation Risk Reduction Framework begins to address this area along with enforcement of large developers via the LDCC (Land Development Control Committee ) by withholding planning approval until agreements to adhere to mitigation and risk reduction requirements were achieved.

The DDM has produced a kit with models of potential impact from storm, wind hazards etc., to educate developers about the risks to their intended project. This information has allowed developers to redesign projects to mitigate hazards.

### Context & Constraints:

This has been a successful programme and the large developers, and small ones doing at risk services, have all complied readily and welcomed the opportunity to show they cared about risk management and the safety of their employees, resources and properties.

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## Antigua and Barbuda (in English)

### Level of Progress achieved:

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

### Are the impacts of major development projects on disaster risk assessed?

-- Nothing reported within this timeframe. --

### Means of Verification:

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

Very large projects are usually required to carry out an EIA. However, Hazard impact Analysis is not usually requested and very few projects are referred to the National Office of Disaster Services for assessment.

**Context & Constraints:**

The scope of analysis needs to be wider if we are going to achieve good DRR benefits.

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## Argentina (in Spanish)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

El ya mencionado anteproyecto de Ley de Ordenamiento Territorial, como legislaciones provinciales (Ley 8051 en Mendoza, con sus proyectos complementarios actualmente en tratamiento), habilitan estas cuestiones. Y los técnicos están capacitados para las evaluaciones.

Colegios de profesionales analizan permanentemente la adecuación de regulaciones para infraestructura, etc.-

La comunidad está reaccionando ante emprendimientos que pueden afectar al ambiente o ser factor de riesgo de desastre (casos del Delta del Tigre).

Justamente por esta cuestión, las autoridades del Municipio de Tigre (Provincia de Buenos Aires) suscribieron un convenio con la Fundación Metropolitana que es miembro de la Plataforma Nacional Argentina para la RRD, para el diseño de un plan que contemplara estas cuestiones.

**Context & Constraints:**

Las capacidades técnicas, a veces son desbordadas por decisiones de "excepción" para autorizar construcciones dudosas.

La comunidad suele reaccionar ante estas cuestiones, pero lo ideal será trabajar para que toda la comunidad desde el principio pueda planificar estratégicamente en forma participada.

Afortunadamente en algunos casos ya se está actuando en esta línea, aunque debe reconocerse que todavía son los menos.

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## Barbados (in English)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

-- Nothing reported within this timeframe. --

**Means of Verification:**

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

The land use management policies are in place and functioning, but implementation in relation to DRR is still required. In addition, DRR in relation to the planning of critical infrastructure such as schools, fire stations, and hospitals has not yet been articulated in a policy context.

Other types of major development projects such as hotel plant, ports and marinas, many of the elements of hazard analysis to be considered are coastal in context. Consequently the very mature coastal zone management programme, which includes coastal development control policies, plans and enforcement procedures, ably handles the requirements related to those hazards.

**Context & Constraints:**

Building requirements for major development rest with the Building Code, and other non-coastal hazards are enforced by other key agencies of government but without the formal adoption of the building code, the adherence to recommendations by developers is strictly on a voluntary basis.

While Government is more conscious of the need to site critical infrastructure away from the coast, there needs to be a better appreciation of other inland areas that may be vulnerable to hazards as well.

**Bolivia** (in Spanish)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

Se ha construido un reglamento para la aplicación en proyectos de reconstrucción y rehabilitación en el contexto del programa de recuperación de emergencias y gestión de desastres del Banco Mundial

**Context & Constraints:**

Se toma en cuenta el impacto del riesgo de desastres en las evaluaciones del impacto ambiental (EIA)

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

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

**Are the impacts of major development projects on disaster risk assessed?**

-- Nothing reported within this timeframe. --

**Means of Verification:**

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

: Apoiar a realização de ações de caráter preventivo destinadas a reduzir a ocorrência e a intensidade dos desastres com ações estruturais e não estruturais. Essas medidas referem-se ao planejamento da ocupação do espaço geográfico e à execução de obras e serviços, principalmente relacionados com intervenções em áreas de risco, tais como, dentre outras: aquisição e instalação de equipamentos, infraestrutura urbana e rural; estabilização de encostas, contenção de erosões, relocação de famílias de áreas de risco, prestação de serviços essenciais, proteção do patrimônio público e demais ações que visem diminuir a vulnerabilidade da população aos desastres, em complementação à atuação Municipal e Estadual.

o Unidade Responsável: Ministério da Integração Nacional

**Context & Constraints:**

Evitar e/ou reduzir perdas e danos provocados por desastres, com ações estruturantes e não estruturantes, visando a minimização de recursos alocados como decorrência de demandas emergenciais, bem como o acompanhamento e avaliação da aplicação destes recursos na verdadeira diminuição da vulnerabilidade das populações beneficiadas.

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**British Virgin Islands** (in English)**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist

developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

As part of the environmental review process, the DDM reviews and comments on proposed projects where an environmental impact statement is required including major capital projects. Hazard and vulnerability assessments are incorporated into the EIA process. Additionally, the Director of the DDM also sits on the Planning Authority and the Environmental Management committees..

**Context & Constraints:**

There is a need for specific EIA regulations to support the Planning Act 2004.

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**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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

The Government of Canada has adopted an all-hazards approach to emergency management, as outlined in the Emergency Management Act. This all-hazards approach implements risk-based emergency management which is dependent on risk assessment. Risk assessment is promoted to identify the potential impacts of events on people, property and the environment.

Public Safety Canada leads the coordination of federal government emergency management activities including conducting risk assessments. It also facilitates the implementation of a risk-based approach by the provinces and territories that bear the mandate of emergency management through the Federal Policy for Emergency Management, An Emergency Management Framework for Canada, and the Emergency Management Planning Guide.

The Environmental Impact Assessment Program within Parks Canada encompasses a number of legislated and policy-based processes. These include the strategic assessment of policy, plan and Program proposals, as required by a Cabinet Directive, and environmental impact assessment of projects under the Canadian Environmental Assessment Act (CEAA). The CEAA is the legal basis for the federal environmental assessment process. The Act came into force in 1995. Legislative amendments were introduced in 2001 and came into force on October 30, 2003.

CEAA and its associated regulations outline the responsibilities, requirements and procedures for the environmental assessment of projects and establish a process for assessing the potential environmental effects of projects in which the Government of Canada has a decision-making responsibility.

**Context & Constraints:**

N/A

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## **Cayman Islands** (in English)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

No

**Means of Verification:**

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

Environmental Impact Assessments are required for some major development projects.

**Context & Constraints:**

Impact Assessments are often not mandated or required and they tend to focus primarily on environmental impacts. Currently disaster related risks and impacts are not usually the focus of these assessments.

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## **Chile** (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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

La Ley de Bases del Medio Ambiente, los códigos de construcción, la Contraloría General de La República, los gobiernos regionales, provinciales y municipales, todos cuentan con instrumentos de evaluación del impacto de proyectos asociados a la finalidad descrita.

**Context & Constraints:**

Si bien se cuenta con los instrumentos, no existen recursos ni capacidades instaladas para fiscalizar íntegramente el cumplimiento de las normas o que permitan establecer eficientemente mecanismos de evaluación permanente del estado del país. Las distancias geográficas y la falta de personal entrenado, entre otras razones, generan falencias importantes que dan cabida a malas prácticas en los procesos de evaluación de impacto.

El Ministerio de Medio Ambiente cuenta con procesos formales establecidos para la evaluación de impacto ambiental de proyectos de gran escala y, por ende, de riesgo de desastres. Estos proyectos son públicos y de acceso de las comunidades afectadas. En general, no se utilizan por los organismos técnicos y en ONEMI para la evaluación de amenazas. Se debiera generar una mayor coordinación a futuro de estas iniciativas.

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## Colombia (in Spanish)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

En la actualidad para el desarrollo de proyectos de gran envergadura se les exige a estos el cumplimiento de una serie de requisitos como son las licencias ambientales y de construcción, dicho licenciamiento siempre está respaldado por un conjunto de estudios como los de Impacto Ambiental, se incluye el Análisis del Riesgo de Desastre, los estructurales de la obra y de su zona de influencia directa. Cabe destacar que la mayoría de estos proyectos los desarrollan el sector privado, el cual, como derrotero para la definición de su intervención la variable de gestión del riesgo se convierte en un ítem estructural para la toma de decisiones de inversión.

El Banco de Proyectos de Inversión Nacional - BPIN ,donde se formulan los proyectos de inversión de todos los sectores productivos , incorpora el estudio de desastres y/o análisis de riesgos como un requisito básico para la formulación y aprobación de los proyectos, sin embargo este es opcional en el momento de la estructuración de los proyectos. Dicho estudio tiene como objetivos “identificar y analizar los riesgos que pueden afectar el diseño y el desarrollo de un proyecto de inversión y/o los riesgos que este pueda generar en su entorno.

Una de las limitantes que en la actualidad que estan enfrentando este tipo de proyectos con respecto a la inclusión de la Gestión del Riesgo es el alto costo de los estudios correlacionados.

**Context & Constraints:**

No en todos los estudios de impacto ambiental es intensivo el análisis del riesgo. No se cuenta con todos los elementos necesarios para lograr que el análisis sea correctamente aplicado en las fichas del Banco de Proyectos de inversión del país. Aunque se han desarrollado instrumentos que buscan que el análisis del riesgo sea un componente básico del ciclo de los proyectos, estos no son implementados por parte de las diferentes entidades.

Por otro lado, a nivel municipal se desarrollan y ejecutan proyectos de escalas inferiores los cuales en la mayoría de las veces no se realizan los estudios detallados bien sea por la flexibilidad de las entidades y/o personas que lo desarrollan, o porque en el marco normativo no se exige.

Como retos están:

El diseño de una directriz nacional, especialmente hacia el Departamento Nacional de Planeación –DNP- para la inclusión detallada de la evaluación del riesgo en los procesos de formulación de proyectos de inversión que sean avalados y financiados por el Estado.

Desarrollar metodologías más prácticas para la inclusión de las variables de gestión del riesgo en los procesos de formulación de cualquier tipo de proyecto de inversión.

Promover en los procesos de formación formal y no formal de formulación de proyectos la inclusión de la variable de gestión del riesgo como un eje transversal de dichas formulaciones.

Identificar recursos técnicos y financieros para promover la investigación y la generación de información para optimizar la inclusión de este tipo de análisis de riesgos en la formulación de cada uno de los proyectos a nivel nacional, departamental y municipal.

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## Costa Rica (in Spanish)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

Como ya es ha mencionado, el Programa de Inversiones Públicas del Ministerio de Planificación y Política Económica, ha diseñado los lineamientos, la metodología y los instrumentos para esta hacer que la valoración del riesgo a desastres sea parte de las consideraciones en las propuestas de inversión.

Toda obra que se lleva a cabo en el país, tanto pública como privada, debe contar con el estudio de impacto ambiental

**Context & Constraints:**

Esta pregunta ya estaba respondida con los datos que se aportaron en otros campos.

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## 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

### Are the impacts of major development projects on disaster risk assessed?

Yes

### Means of Verification:

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### Description:

Los procedimientos están habilitados para evaluar el impacto del riesgo de desastres de los principales proyectos de desarrollo mediante Decreto-Ley sobre "La compatibilización del desarrollo económico y social con los intereses de la Defensa Civil", mediante el cual todas las inversiones están legalmente obligadas a consultarse con los órganos de la Defensa Civil a fin evitar la construcción de obras y elementos de infraestructura en lugares vulnerables y armonizar el desarrollo económico y social con el riesgo de desastre de un territorio. A partir de los resultados de los estudios de riesgo así como de impacto ambiental, posterior a la ocurrencia de desastres se han fortalecido los estudios y la rehabilitación de ecosistemas frágiles mediante la protección del medio ambiente, priorizando las 8 cuencas hidrográficas de interés nacional; la elaboración y cumplimiento del Programa Nacional de Lucha contra la Desertificación y la Sequía; la realización de acciones de reforestación en la zona costera (fundamentalmente en manglares y humedales) y la protección de ecosistemas montañosos

### 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

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## Dominican Republic (in Spanish)

### Level of Progress achieved:

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

### Are the impacts of major development projects on disaster risk assessed?

No

### Means of Verification:

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

- La Ley 64-00 establece en su artículo 38 el proceso de evaluación ambiental a todo proyecto, obra de infraestructura, industria, o cualquier otra actividad, tanto pública como privada, que por sus características pueda afectar, de una manera u otra, los recursos naturales, la calidad ambiental y la salud de las personas.

- Solo los casos de los proyectos que cuentan con financiamiento externo toman en cuenta la gestión del riesgo a desastres en las evaluaciones de impacto ambiental.

- En algunas obras de infraestructura se toma la planificación con una perspectiva del riesgo a desastres

**Context & Constraints:**

- Incluir la gestión de riesgo en las evaluaciones de impacto ambiental de los proyectos de desarrollo.

- Creación y fortalecimiento de los comités de gestión de riesgos sectoriales con mecanismos de asignación de funciones y responsabilidades claras.

- El tema de gestión de riesgos ante desastres no está incluido en forma expresa en el proceso de evaluación ambiental.

- Se debe incorporar la reducción de vulnerabilidad en el ciclo de ejecución de proyectos de inversión pública y privada ante desastre.

- Vincular las unidades de gestión ambiental de los municipios con los Comités de Prevención, mitigación y Respuesta.

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**Ecuador** (in Spanish)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

El Consejo Nacional de Juntas Parroquiales Rurales del Ecuador (CONAJUPARE), la Asociación de Municipalidades Ecuatorianas (AME), el Consorcio de Consejos Provinciales del Ecuador (CONCOPE) y la Secretaría Nacional de Planificación y Desarrollo (SENPLADES) presentaron este 28 de julio último, los

Lineamientos para la Planificación del Desarrollo y el Ordenamiento Territorial; así como las Estrategias para el Fortalecimiento del Sistema Nacional Descentralizado de Planificación Participativa. Estos lineamientos y estrategias son nuevas herramientas con las cuales los Gobiernos Autónomos Descentralizados (GAD) podrán diseñar sus planes de desarrollo tomando en cuenta una asignación equitativa de recursos, una mejor coordinación con los diferentes niveles de gobierno, la articulación con el Plan Nacional para el Buen Vivir, así como procesos de planificación participativa, rendición de cuentas y control social. Estos lineamientos proponen estrategias a aplicarse conjuntamente por parte de los actores de la planificación, con la finalidad de fortalecer y consolidar progresivamente el Sistema Nacional Descentralizado de Planificación Participativa (SNDPP).

El SNDPP tiene la finalidad de coordinar y articular la planificación nacional con la de los niveles territoriales de gobierno; y de ese modo propiciar decisiones de inversión pública que garanticen la satisfacción de las necesidades básicas de la población y la equidad social y territorial, favoreciendo la descentralización y la participación ciudadana, en el marco del Plan Nacional para el Buen Vivir y de los planes de desarrollo y ordenamiento territorial de los gobiernos autónomos descentralizados.

El Código de Ordenamiento Territorial (COOTAD) tiene como fin generar un nuevo modelo de descentralización en el país que sea efectivo. Entre algunos de los aspectos más relevantes es la posibilidad que tienen las provincias de organizarse voluntariamente en regiones para facilitar la distribución de asignaciones presupuestarias a los gobiernos descentralizados.

#### **Context & Constraints:**

Contar con herramientas instrumentos metodológicos y de fortalecimiento de capacidades institucionales a nivel nacional y local, así como espacios de coordinación para la socialización de marcos normativos asociados a la planificación y al diseño del sistema descentralizado de gestión de la cooperación internacional. Y el fortalecimiento del Sistema Nacional Descentralizado de Planificación Participativa, y de los Gobiernos Autónomos Descentralizados.

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## **El Salvador** (in Spanish)

#### **Level of Progress achieved:**

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

#### **Are the impacts of major development projects on disaster risk assessed?**

No

#### **Means of Verification:**

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

#### **Description:**

El proceso de identificar, cuantificar y valorar económicamente, así como controlar y evaluar los efectos e impactos ambientales es de vital importancia en proyectos de tipo comercial, habitacional, industriales, agroindustriales, turismo y otros que se realizan en el país, también es necesario impulsar el uso de metodologías, procedimientos de evaluación y monitoreo ambiental que permitan corregir o minimizar los daños ocasionadas por el no acatamiento de las Normas establecidas para este fin.

#### **Context & Constraints:**

Si bien los EIA (Estudios de Impacto Ambiental) están contemplados en la Ley de Medio Ambiente, históricamente se ha hecho caso omiso de ésta normativa, ya que se desarrollan proyectos de construcción de complejos habitacionales y otros en cordilleras, cerros y lugares no aptos, aumentando la susceptibilidad o vulnerabilidad de la población.

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## Guatemala (in Spanish)

### Level of Progress achieved:

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

### Are the impacts of major development projects on disaster risk assessed?

No

### Means of Verification:

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### Description:

El avanece en las evaluaciones de impacto de riesgo a los desastres, Guatemala lo ha centrado en la etapa post desastre.

A raíz de los eventos del 2010 y de la presencia de la Misión Interagencial de CEPAL, propició que el personal de SECONRED lograra trabajar en conjunto con los especialistas, conociendo un poco más del proceso de recolección de información así como de la evaluación del impacto en diferentes sectores: vivienda, educación y cultura, salud, energía, agua potable y saneamiento, transporte y comunicaciones, agropecuario, industria y comercio, y turismo.

Especialmente en infraestructura, la experiencia adquirida en los eventos ocurridos en 2010 en la atención de la emergencia, así como en la recuperación, generaron procesos que ahora permiten conocer en menor tiempo las condiciones de infraestructura (vial y energética) y brindar la atención oportuna (habilitación de carreteras y energía), así como evaluar de mejor forma el impacto generado por el/los desastres el país.

La Unidad Ejecutora de Conservación Vial (COVIAL) actúa acorde a su Plan de Contingencia, y realiza evaluaciones de impacto en los proyectos de infraestructura, con base al Manual de Normas de Ejecución (1985).

Por otro lado, el Vice-Ministerio de Energía, debido a los procesos estandarizados de construcción y colocación de torres y equipo, y el cumplimiento en tiempo del mantenimiento, genera que pocas veces sufra daño considerable. El abastecimiento de energía se trabaja por circuitos lo que permite abastecer por una u otra vía. El daño surge en áreas rurales donde no está completo el proceso.

### Context & Constraints:

A nivel de país no se ha logrado contar con las capacidades técnicas para lograr realizar eficientemente las evaluaciones de impacto en cada uno de los sectores de manera estructurada y basados en un procedimiento internacional como el de CEPAL. Por ello, es importante que se trabaje en gestionar las

capacitaciones necesarias para lograr contar con el equipo que pueda dirigir y realizar las evaluaciones de impacto en eventos menores.

Es importante también que se trabaje a nivel de todas las instituciones gubernamentales para que generen los mecanismos de recolección y registro de información durante la emergencia y la recuperación que permita realizar las evaluaciones de impacto con datos acertados para determinar de igual forma las necesidades de las poblaciones afectadas.

La Unidad Ejecutora de Conservación Vial (COVIAL) a pesar de actuar con base al Manual de Normas de Ejecución, los formatos de impacto ambiental carecen de actualizaciones y no incluyen en sus valores la evolución del riesgo. Por lo que es importante trabajar en este punto.

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## Honduras (in Spanish)

### Level of Progress achieved:

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

### Are the impacts of major development projects on disaster risk assessed?

Yes

### Means of Verification:

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### Description:

Si se evalúa pero nadie lo aplica Ni lo controla. No hay un ente rector que evalúe dichos proyectos de manera permanente.

No hay impactos del riesgo de desastre tomados en cuenta en las evaluaciones de Impacto Ambiental por que falta un enfoque integral sobre el tema. El PNUD esta trabajando en un taller de socialización respecto al tema de recuperación temprana.

En el país existe un sistema de evaluación ambiental que funciona desde varios años y ya hay acercamientos entre COPECO y Serna para ampliar este mecanismo incluyendo criterios sobre gestión de riesgos.

### Context & Constraints:

No hay seguimiento y control de las acciones tomadas en el momento de la ejecución de la obra.

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## Jamaica (in English)

### Level of Progress achieved:

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

## Are the impacts of major development projects on disaster risk assessed?

Yes

### Means of Verification:

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### Description:

The permit and license regulations under the NRCA act requires that such categories of development be submitted to the National Environment and Planning Agency for review. Hazard and vulnerability assessments are conducted for these applications and recommendations made for mitigating hazards. All large scale projects are required to submit Environmental Impact Assessments for review, these include infrastructure development projects.

The organization is also pushing to have Hazard Impact Assessments conducted for large projects as a policy.

There is now a more rigorous review of hazard risk assessments in the development approval process and for issuing of permits and licences.

NCA Act.

### Context & Constraints:

There are challenges with the timeframe of the approval process (90 days).

Assessing development applications is not a core function of the ODPEM. Although the skills exist, the human resources are not always available to adequately undertake such assessments. The volume of applications to be assessed nationally is quite large and beyond the capacity of the organization.

Data to assess risk is not captured in a systematized process.

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## Mexico (in Spanish)

### Level of Progress achieved:

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

## Are the impacts of major development projects on disaster risk assessed?

Yes

### Means of Verification:

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### Description:

Cada año se elabora la publicación "Impacto Socioeconómico de los Principales Desastres", que incluye reportes de diversos fenómenos ocurridos en México, como inundaciones, lluvias torrenciales, sismos y deslizamientos, algunos de ellos evaluados conjuntamente con la Comisión Económica para América

Latina y el Caribe (CEPAL).

Asimismo, se ha creado e implementado el Sistema de Análisis de Visualización de Escenarios de Riesgo (SAVER), con el objetivo de representar el impacto de un escenario de desastre y en particular las pérdidas económicas, para privilegiar la inversión en términos de mitigación de los riesgos.

En materia de infraestructura educativa, el INIFED trabaja en la identificación del grado de exposición, la vulnerabilidad y los riesgos de la infraestructura física educativa nacional, así como en la distribución de información que permita revisar y actualizar las normas que regulan la infraestructura física educativa del país.

La SAGARPA presenta informes preventivos, manifestaciones de impacto ambiental (MIA) y estudios de riesgo, los cuales son realizados por instituciones de investigación, colegios o asociaciones profesionales. Para elaborar una MIA, un informe preventivo o un estudio de riesgo existen guías. En el caso del informe preventivo y la MIA regional existen guías genéricas; para las MIA particulares existe una guía para cada sector productivo (turístico, aprovechamiento forestal, vías generales de comunicación, cambio de uso de suelo, residuos peligrosos, pesquero, petrolero, minero, industrial, energía eléctrica, plantaciones forestales y gasero). De la misma manera existen guías para la elaboración de estudios de riesgo a cuatro niveles: Nivel 0 - Ductos Terrestres; Nivel 1 - Informe Preliminar de Riesgo; Nivel 2 - Análisis de Riesgo; y, Nivel 3 - Análisis Detallado de Riesgo.

**Context & Constraints:**

Contemplar las evaluaciones producto de los Sistemas de Visualización, con el fin de prevenir desastres y en su caso, minimizar los riesgos para la población, la infraestructura y el ambiente.

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## Nicaragua (in Spanish)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

En el período de agosto – noviembre de 2010, se realizó el Análisis Social y Evaluación Ambiental del “Proyecto de Recuperación de Emergencia por el Huracán Félix”, el cual permitirá contar con un plan de las principales inversiones del Proyecto.

A través del INVUR, se ha impulsado el análisis de emplazamientos de sitios para la construcción de viviendas de interés social, se tiene una eficiente coordinación interinstitucional y sectorial para el análisis de la inversión habitacional y realizar la evaluación del riesgo en la fase de pre factibilidad del proyecto, de esta forma se agiliza el trámite de permisología en la ventanilla única para la construcción de viviendas. Se ha avanzado en la elaboración de metodologías para evaluar las infraestructuras como puentes y

carreteras en donde se ha incorporado indicadores de gestión de riesgos para evaluar la vulnerabilidad estructural.

**Context & Constraints:**

Aun falta la incorporación de actores no tradicionales como el sector privado, sector académico y otras organizaciones.

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**Panama** (in Spanish)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

En Panamá los procedimientos están habilitados para evaluar el impacto del riesgo de desastres de los principales proyectos de desarrollo, especialmente de infraestructura. Las instituciones mantienen formalmente establecidos los procedimientos en los que integran las medidas para la reducción del riesgo de desastres en las estrategias, en algunas existen planes. Todos los proyectos de desarrollo que se dan en el país tienen que pasar por el proceso de evaluación de Impacto ambiental según lo estipula la ley 41 de julio de 1998. El país buscando hacer más eficiente el proceso de Evaluación de Estudios de Impactos Ambientales ha ido desarrollando toda una legislación tendiente a perfeccionar y establecer normas de calidad ambiental que permitan el desarrollo del país en armonía con el ambiente. Es por eso que dentro de los objetivos fundamentales de la creación de la Dirección de de Evaluación y Ordenamiento Ambiental (ANAM), está el de garantizar el control, seguridad, calidad y eficiencia en los usos del territorio nacional, en función de sus características sociales, ecológicas, culturales y las necesidades de desarrollo, a través de las políticas y las reglamentaciones establecidas. Buscando desarrollar mejores acciones en el territorio nacional tendientes a garantizar la sostenibilidad y reducir vulnerabilidades esta Dirección cuenta con los Departamentos de: Ordenamiento Territorial Ambiental, Evaluación de impacto ambiental y Gestión de Impacto ambiental. Hay muchos proyectos que al presentarse y al evaluar sus impactos ambientales se concluye que este no debe realizarse por diferentes razones dentro de las cuales se consideran impactos al ambiente y riesgos a las poblaciones.

Una vez que los proyectos están en ejecución La Dirección Nacional de Calidad Ambiental es la unidad encargada de darle seguimiento a los mismos para que se cumplan todas las medidas de mitigación propuestas en el Estudio de Impacto Ambiental y las consideradas en la resolución que aprobó el mismo. Esta dirección define, elabora e implementa políticas, planes y programas nacionales para promover regimenes normativos, tendientes a conservar, proteger y mejorar la calidad del ambiente, también fija y aplica instrumentos de gestión ambiental, como mecanismo permanentes de concertación entre los diferentes sectores involucrados, en el desarrollo de la gestión ambiental a nivel nacional. Para realizar toda esta política la dirección cuenta con los departamentos de Adecuación y Manejo Ambiental, Control

de la Calidad Ambiental, Desastres Ambientales y un laboratorio de Calidad Ambiental, buscando mejorar y que el desarrollo de los principales proyectos en el país causen los mínimos riesgos de desastres al Ambiente y las poblaciones el Departamento de Desastres Ambientales, quien entre otras cosas le corresponde evaluar los planes de contingencias y las medidas propuestas para hacerle frente a un posible desastre Ambiental.

**Context & Constraints:**

Se evalúan los impactos ambientales de los proyectos de Desarrollos, no obstante falta perfeccionar el mecanismo de evaluación de los riesgos que estos puedan generar; a pesar de que las leyes los contemplan.

Falta implementación de la Ley para que en cada proyecto se mida el impacto del riesgo.

Se adolece que se implemente una política de gestión de riesgo en todas las esferas del país.

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## Paraguay (in Spanish)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

Actualmente las instituciones encargadas de implementar grandes proyectos de desarrollo tanto de infraestructura como de generación de empleos no tienen en cuenta la gestión de riesgo en su planificación, tanto para la generación de nuevos riesgos y potenciar las amenazas.

**Context & Constraints:**

Las instituciones del país que participaron de diferentes procesos de capacitación sobre el tema gestión y reducción de riesgo ya han iniciado actividades tendientes a la inclusión del tema en su accionar cotidiano. Podemos decir que la limitación es la no cobertura de estos procesos hacia otras instituciones.

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## Peru (in Spanish)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

No

**Means of Verification:**

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

En los proyectos de desarrollo a gran escala se considera básicamente el impacto económico.

**Context & Constraints:**

La Reducción de riesgo de desastres no esta incluida como politica de estado

La entidad rector de desarrollo, el CEPLAN es de implementación reciente, por lo que no se cuenta con un Plan Nacional de Desarrollo aprobado.

Los estudios de impacto ambiental no incluyen la reducción de riesgo de desastres.

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## 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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

Procedures have been implemented in St. Kitts as fledgling initiatives, while an impact assessment was undertaken in Nevis, July 2010 ( Post Hurricane Earl) through a Natural Hazard Impact Assessment project, sponsored by the OAS.

Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk is being undertaken.

Disaster risk impacts are taken into account in Environment Impact Assessments (EIA).

**Context & Constraints:**

Consistent enforcement remains a challenge.

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## Saint Lucia (in English)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

The current development approval process requires that the Environmental Impact Assessments be conducted for development proposals of a certain size and / or locates in certain locales.

With respect to electrical power supply, one of the company targets is to assess the level of impact its operations has on the environment. This has to do with the impact of fuel oil, lubricating oil and transformer oil leakage into the environment, and the extent of tree clearing undertaken and tree replanting exercise.

Construction standards exist to guide the manner in which the electricity system is constructed, and maintained, to withstand category 3 hurricane force wind.

**Context & Constraints:**

Although conducted, the risk assessment are not always respected in its entirety and recommendations are no always conformed to. Enforcement is often times a challenge.

One challenge faced is that of deforestation to run power lines. To minimize tree cutting tree conductors are increasingly used in forested areas.

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## Turks and Caicos Islands (in English)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

With the inclusion of the Department Disaster Management and Emergencies (DDME) on the Physical Planning Board within the last year Some aspects of DRR are taken into account when deliberating on planning applications

**Context & Constraints:**

With the introduction of more user friendly data the integration of DRR in the Physical Planning Process

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## 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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

The United States recognizes that protecting critical infrastructure systems or “lifelines” is essential to developing disaster resilient communities and is investing in the development of integrated models of interdependent systems in order to identify and address additional vulnerabilities.

Under the National Environmental Policy Act, the U.S. Environmental Protection Agency conducts interagency reviews of all federally-funded construction projects that may have a significant impact on the environment.

The Department of Transportation (DOT) participates actively in the Transportation Systems Sector of the National Infrastructure Protection Plan (NIPP), coordinated by the Department of Homeland Security. DOT also requires that recipients of the Federal Railroad Administration’s development and improvement grants produce safety and security management plans.

The U.S. Army Corps of Engineers supports NIPP through its Critical Infrastructure Protection & Resilience (CIPR) Program. The objectives of the CIPR program include assessing and prioritizing Corps-managed critical infrastructure by implementing a portfolio-wide risk assessment framework. Through multi-jurisdictional, discussion-based exercises involving a wide array of public and private stakeholders, the Army Corps also conducts a collaborative dam safety exercise series to identify, analyze, assess, and enhance regional preparedness and disaster resilience.

By Executive Order of the President, federal agencies are required to avoid, to the extent possible, the long and short-term adverse impacts associated with the occupancy and modification of floodplains, and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. FEMA applies the Executive Order to its own disaster recovery and hazard mitigation projects, ensuring that those projects which have the potential to affect floodplains, wetlands or their occupants, or which are subject to potential harm by their proximity to wetlands or floodplains are analyzed and assessed prior to implementation. FEMA also provides technical assistance to other federal agencies for their implementation of the Executive Order, guidance on specific actions federal agencies can take, and guidance on flood risk identification, flood hazard mitigation techniques, and floodplain management.

**Context & Constraints:**

See above.

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**Venezuela, Bolivarian Rep of** (in Spanish)**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

El Ministerio del Poder Popular para el Ambiente exige, para los nuevos proyectos de desarrollo, estudios de impacto ambiental que contemplan evaluaciones de riesgos de desastres en el entorno, con base en los procedimientos establecidos en la Ley Orgánica del Ambiente y la Ley Orgánica para la Ordenación del Territorio. Los mencionados estudios están orientados a evaluar los efectos de una actividad (minería, infraestructura, hidrocarburos, entre otras), sobre el ambiente natural y social, con el objetivo de generar medidas preventivas, mitigantes y correctivas, a fin de garantizar el cumplimiento de la ley y la sostenibilidad del medio ambiente.

**Context & Constraints:**

-Generar estudios de impacto ambiental, para proyectos de desarrollo de todos los sectores.

-Limitaciones en cuanto a las capacidades institucionales, de recursos humanos y financieros.

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# Asia

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## Bangladesh (in English)

### Level of Progress achieved:

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

### Are the impacts of major development projects on disaster risk assessed?

Yes

### Means of Verification:

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### Description:

Disaster risk and Environmental Impact Assessment (EIA) methodologies have been developed and it was decided that the EIA information, disaster risk information and its mitigation options has to be placed while submitting any project to Executive Committee of National Economic Council (ECNEC) for approval by the government. This is applicable to all ministries, agencies, department for all sectors. Mainstreaming disaster risk reduction out of the MoFDM remains a key national challenge. DoRR of DMRD in association with MoEF has just embarked upon cyclone resilient housing programme in the costal areas targeting around 700 families. Local government engineering department (LGED) and BWDB have already commenced rehabilitation works for the damaged embankments following cyclone Sidr and Aila.

### Context & Constraints:

However, developing new ways of working with a greater range of GoB ministries and departments is now the challenge, in order to raise the focus of risk reduction across a government wide dimension, and to have impact at scale. There is no formal focus for DRR mainstreaming within the current organization charts of DMRD, MoFDM and SOD. Current efforts for mainstreaming require further acceleration to reach all actors in development planning and implementation.

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## Brunei Darussalam (in English)

### Level of Progress achieved:

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

### Are the impacts of major development projects on disaster risk assessed?

-- Nothing reported within this timeframe. --

### Means of Verification:

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

NDP outlines projects for identified priority catchments, water retention ponds and detention dams, tidal water barrage as well as equipment needed for monitoring and forecasting such as hydrological measurements by telemetry and Doppler radars.

Environmental considerations are currently incorporated into developmental decision-making through land use planning and zoning requirements.

Building Code has been revised while new guidelines were established for earthwork in development works. Procedures are being looked into to improve implementation. The Building Code has been revised while new guidelines were established for earthwork in development works. Procedures are being looked into to improve implementation.

**Context & Constraints:**

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

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

The activities of NEA includes the expertise of major development projects such as dams, irrigation schemes, highways and etc Environment Impact Assessment related to the impact of hydrometeorological, engineer-geological, hydrogeological processes and environment pollution.

NEA carries out the assessment of mining to the environment as well the assessment of engineer-geological conditions of homestead plots and houses, arrangement of engineer-geological and hydro geological consultation works to avoid the further development of hazardous events.

**Context & Constraints:**

As the territory of Georgia regarding negative impacts, scale caused by disaster belongs to the special region among the mountainous countries of the world it is necessary close incorporation of all stakeholders, as the environment monitoring and assessment organization, in preparation of Environment Impact Assessment of state major development projects.

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## India (in English)

### Level of Progress achieved:

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

### Are the impacts of major development projects on disaster risk assessed?

Yes

### Means of Verification:

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### Description:

Government of India has introduced a system of Disaster Resilient Audit on Self Certification Basis which will be applicable right from the inception and the Planning stage of all new centrally sponsored schemes .Ministry of Finance has issued instructions to all Ministry to include disaster risk reduction features into all new projects and establish a check mechanism at project formulation, appraisal and approval stage.It is also planned to selectively revisit some of the old development schemes.

### Context & Constraints:

The major challenge lies in esnuring compliance to such certification process.

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## Indonesia (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

### Are the impacts of major development projects on disaster risk assessed?

Yes

### Means of Verification:

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### Description:

Indonesia has developed an analytical instrument to assess the disaster risk impacts of major development projects. Infrastructure development works have applied Environment Impact Assessment as an effort to reduce disaster risks. The policy towards that purpose has already been present, as stipulated in the Disaster Management Bill and its ancillary regulations, but not yet in the form of more operational legislation (Perka BNPB).

To date Indonesia has made it prerequisite to conduct Environmental Impact Analysis at the individual project level. The government has also enforced the implementation of a more comprehensive Strategic Environmental Analysis as a complement for EIA for areas that have many development projects that may potentially damage the environment. As a result, for instance, the proposal to build a toll road in Surabaya has recently been rejected by the local government due to its incompatibility with the planned spatial development of the areas. The construction of Suramadu bridge, to cite another example, that connects the Java Island to Madura Island, has applied EIA and disaster risk reduction assessments. The case is also true with the construction of flood barriers in Bengawan Solo river basin.

**Context & Constraints:**

The constraints faced in enforcing procedures to assess the disaster risk impacts of major development projects include the limited budget available for this specific purpose and the lack of coordination for disaster risk reduction initiatives. In the future the BNPB needs to facilitate coordination with the Ministries and Agencies in preparing the required risk assessment instrument. As a first step, the government may examine the possibility of including disaster risk analysis for major infrastructure and development projects into Strategic Environmental Analysis.

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**Japan** (in English)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

The revised Priority Plan for Social Infrastructure Development was set forth in 2008 to promote prioritized, effective and efficient infrastructure improvement projects. One of the main tasks identified in the Plan is to make a disaster resilient national land. The Plan identifies the disaster risk reduction as one of the four important issues to be addressed and needs improvement of social infrastructure putting emphasis on consideration of impact of global warming, increase of disaster vulnerable persons, and declining of mutual help system in local community.

Environmental Impact Assessment Act, which was enacted in 1997, legislates the system for predictive assessment of the environmental impact by the large-scale public works.

Ministry of Land, Infrastructure, Transport and Tourism has conducted evaluation of the responsible public works from a broad perspective including disaster risk reduction when the projects are initiated, revaluation during the projects, and post-project evaluation.

**Context & Constraints:**

N.A.

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## Lao People's Democratic Republic (in English)

### Level of Progress achieved:

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

### Are the impacts of major development projects on disaster risk assessed?

Yes

### Means of Verification:

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### Description:

The legal requirement for Environmental and Social Impact Assessments (ESIA) of development projects only came into force in 2010 with the ratification of the ESIA Decree. Investment projects in all sectors will require either an IEE (Initial Environmental Examination) or ESIA – depending on the project's size and extent, guidelines for determining which requires an IIE or ESIA are in the Decree.

There are numerous projects supporting implementation of the Decree currently ongoing with the Department of Environmental and Social Impact Assessment (DESIA) at WREA. This includes the Strengthening Environmental Management II project which ended in 2010 (SIDA), the Poverty-Environment Initiative (UNDP-UNEP), Lao Environment and Social project (World Bank) and the Environmental Management Support Project (Finland). All the projects focus extensively on development of various technical guidelines, institutional procedures and capacity building. It is unclear if/how DRR is specifically addressed within these efforts.

The government of Lao PDR, through the Water Resources and Environment Agency (WREA) advises that every major infrastructure project such as roads/bridges, factory, and hydropower constructions must submit, prior to commencement of a project, an ESIA report to WREA (DESIA). WREA in turn nominate a committee to assess the report. The committees vary according to the project, consisting of WREA staff and staff from the concerned ministry, e.g. for road & bridge construction the committee members are from the Ministry of Public Works and Transport (MPWT), hydropower project the committee will include members from the Ministry of Industry and Commerce. The committee formed will then assess the assessment report submitted by the project owner/investor. If the ESIA meets the government of Lao PDR environmental and social impact requirements, the committee will issue an authorisation letter for the project commencement. Furthermore, during the construction period the committee will monitor the projects environmental and social aspects and if the undertaking is found to conflict with the WREA initial assessment, the committee can halt the project.

### Context & Constraints:

#### Constraints:

The current low technical capacity and expertise in ESIA across both government and private sector in Lao PDR is a critical issue. As such, the ESIA process currently focus more generally on environmental degradation caused by investment projects and their direct impacts on local livelihoods and health. The indirect and longer-term impacts on ecosystem productivity, environmental resilience and social capacity for disaster risk management are generally not adequately considered.

## The Way Forward

Enhancing the capacity of the WREA and DESIA is imperative to the improvement of current ESIA in Lao PDR. Resources need to be allocated to enhance the technical and manpower capacity to allow for initial ESIA to be conducted by WREA, not the project owner/investor, and allow for ongoing monitoring throughout the course of the project and a dedicated tenure once the project has been implemented to ensure the highest environmental standards are achieved.

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## Lebanon (in English)

### Level of Progress achieved:

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

### Are the impacts of major development projects on disaster risk assessed?

Yes

### Means of Verification:

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### Description:

Some new policies have been established in the public sector. However, there are currently no specific regulations in place to prevent the disaster risk impact of major development projects, particularly public infrastructure related projects. Nonetheless, Disaster Risk Reduction issues are expected to surface in some significant upcoming projects.

### Context & Constraints:

Most major development projects do not account for the natural risks in Lebanon and measures are not currently taken to protect people. This is mainly due to a lack of will and a lack of effective planning.

Recommendations include:

- Establishing laws and regulations for early recovery and reconstruction
  - Allocating a specified budget for reconstruction
  - Formulating systematic policies that promote Disaster Risk Reduction
- 

## Malaysia (in English)

### Level of Progress achieved:

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

### Are the impacts of major development projects on disaster risk assessed?

-- Nothing reported within this timeframe. --

### Means of Verification:

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist

developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

Since 1999, the concept of Environmental Sensitive Areas (ESA) has been adopted in preparing state sustainable development strategy, including national physical plan, state structure plan and local plan. ESAs are areas identified as sensitive towards development and further aggravation could lead to the overall degradation of the environment, which led to the increase risk of natural disaster and threatening the ecosystem. The policies are translated into local plan to ensure the ESA is managed in a sustainable way. Generally, ESAs are grouped into three classes based on functions concerning heritage value, hazard risk and life support.

**Context & Constraints:**

More efforts are needed to institutionalise procedures to directly integrate DRR measures in plans, policies and programme at all levels and different sectors. While awareness and capacity have to be improved, appropriate guidance materials and tools should be developed to facilitate such efforts.

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## Maldives (in English)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

Environmental impact studies are conducted in every infrastructure project. EIA's are conducted for every project before construction. However, no studies are conducted while the project is being implemented and after the project has concluded.

**Context & Constraints:**

The existing procedures to assess the disaster risk impacts of major development projects and the studies being conducted while the project is being implemented needs to be monitored. The new Environmental Act does address environmental disasters and has a separate section for it.

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## Mongolia (in English)

**Level of Progress achieved:**

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

### **Are the impacts of major development projects on disaster risk assessed?**

Yes

#### **Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

#### **Description:**

“Comprehensive Policy on National Development”, which is based on the national MDGs, was initiated by the President of Mongolia, articulated by the Government, and endorsed by the Parliament in 2008. The policy document defines the vision and priority actions for developing the country until 2021 and has determined the following risks as those that might arise during the implementation of the Strategic Plan for National Development:

- 1.Economic risks: Sudden drops in the world market prices of gold, copper, and coal etc., trade barriers and differential tax policies by the neighbor countries, and sudden rise in the price of petroleum products;
- 2.Environmental and climate change and extreme events: Consecutive droughts and severe winters, desertification, and other types of hazardous phenomena;
- 3.Public health risks: Outbreaks of contagious “A” level livestock diseases and highly contagious diseases such as avian influenza and bubonic plague, spread of HIV and AIDS and etc.;
- 4.Industrial and business risks: Widespread and prolonged disruptions in energy supply, industrial and technogenous accidents, and disruptions of road, transportation and communication infrastructures;
- 5.Governance risks: Inadequate enforcement of laws, weakened internal monitoring and accountability system of the government, unclear assignment of responsibilities and mandates, inadequate enforcement of accountability, inability to conduct just and transparent elections, flourishing of corruption etc.

To avoid these risks, they need to be considered in the medium and short term planning, and in cases these risks materialize into real threats, the amount of consequent losses need to be contained to the minimum. These risks always need to be considered in large investment projects.

The risk management mechanism deployed in handling the above-mentioned risks needs to be constantly improved and polished.

#### **Context & Constraints:**

Many projects are implemented in the fundamental development sectors of the country such as poverty reduction, housing, drinking water and energy supply, health, agriculture, and infrastructure. The absence of legally established procedures for mainstreaming disaster risk reduction considerations into the national sustainable development strategy, policy, and program in order to prevent any possible accidents and disasters related to the implementation of those projects is presenting a big challenge.

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## **Nepal** (in English)

#### **Level of Progress achieved:**

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

## Are the impacts of major development projects on disaster risk assessed?

No

### Means of Verification:

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### Description:

Environmental Impact assessment is a mandatory process for large scale project; however, there is no process established for Disaster Impact Assessment. There is growing acknowledgement to assess disaster resiliency of development projects.

Kathmandu is at high earthquake risk but neither the residential buildings nor the public buildings have gone through vulnerability assessment. There is sincere awareness among government authorities, local authorities and, to some extent, among general public as well. However, the level of risk has not been assessed for buildings, infrastructures and lifelines.

### Context & Constraints:

Government is aware of the need to incorporate and institutionalize disaster impact assessment (DIA) in major projects during its design phase such as EIA. However, it needs substantial revision of the existing Act or enforcement of new Act. The capacity is limited not only at the local levels but also at the central level. There is lack of tools for impact assessment and also for assessment of contribution of a particular project to the resiliency of communities.

### Recommendations

Contribution to disaster resiliency should be one of the factors for prioritization of projects as it will be instrumental in building resiliency to nations and communities.

Establish a mechanism to assess disaster impact of development project.

Develop system and mechanism to include Disaster Impact Assessment (DIA) along with Environmental Impact Assessments (EIA) in all major projects; and incorporate disaster consideration in environmental and natural resources management.

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## Pakistan (in English)

### Level of Progress achieved:

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

## Are the impacts of major development projects on disaster risk assessed?

-- Nothing reported within this timeframe. --

### Means of Verification:

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

A National Working Group has been established to integrate DRR into development projects. the Working Group is represented by 10 key ministries at the federal level which are involved in developing and implementing mega projects in various sectors. Besides, the PC 1 form, the initial project approval document of the Planning Commission, is being modified to include DRR aspect as the integral element of project planning. As per existing project planning practices, the impact of mega projects such as dams, highways, irrigation projects, on disaster risks is evaluated at the planning stage. Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA) regulations 2000 have been notified under Pakistan Environment Protection Act 1997. Part D has also been introduced in the project initiation requirements of Planning Commission (PC-I), which deals with EIA. All these institutional measures to protect environment contributing to disaster risk reduction as degradation of environment exacerbates disaster risks on various accounts.

**Context & Constraints:**

Lack of institutional capacities is the biggest challenge. Besides, absence of an efficient monitoring and evaluation system at the implementation as well as at post implementation stages of development projects to ensure protection of environment is another constraint

**Sri Lanka** (in English)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

A flood mitigation project was implemented in Kathiraveli, Batticaloa. CCA measures have also been incorporated into the Plan with community consultations.

Village development planning in five war-affected GN Divisions is being done, taking disaster risk into consideration, as pilot interventions. Lessons of these projects will be scaled up in other village level development projects in the Batticaloa District.

A process has been initiated during the last year to incorporate disaster risk into development projects. All development stakeholders were consulted on challenges and were made aware of the importance of incorporating disaster risk into development planning of major projects.

A video has been developed to raise awareness among planners on mainstreaming DRR into development

projects. The DMC is now involved as a member of the Technical Evaluation Committee (TEC) of the development project in disaster prone areas. Two EIA reports have already been assessed by the DMC and comments were provided.

The Dam Safety and Water Resources Planning Project implemented by the Ministry of Irrigation and water management, funded by The World Bank, commence in 2008. The Project Development Objectives (PDOs) are to: (i) establish long-term sustainable arrangements for operation and maintenance of large dams; and (ii) improve water resources planning. The project will enhance public safety of 32 selected large high risk dams and improve operational efficiency of 80 dams (including the 32 dams).

The Department of National Planning of the Ministry of Finance agreed to consider disaster impacts when recommending projects for funding, provided a mechanism is established to issue a certificate for disaster impact assessment.

A proper and simplified tool/checklist is required to assess the development of disaster risk.

**Context & Constraints:**

In principle, the Government has not accepted the need to undertake disaster impact assessments for all major projects.

Capacity has to be developed among the EIA practitioners, enabling them to incorporate DRR in the EIA process.

Regional experience in undertaking disaster impact assessments is not available.

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## **Syrian Arab Republic** (in English)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

Studies are being conducted to assess the impacts of major development projects such as dams, oil tanks, and refineries in order to reduce disaster risks.

**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

### Are the impacts of major development projects on disaster risk assessed?

-- Nothing reported within this timeframe. --

### Means of Verification:

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### Description:

Require further study and investigation

### Context & Constraints:

Require further study and investigation

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## Yemen (in English)

### Level of Progress achieved:

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

### Are the impacts of major development projects on disaster risk assessed?

Yes

### Means of Verification:

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### Description:

If the environmental impact assessment study was imposed and implemented, it would incorporate the effects of disaster risk and everything else that is not currently known or not put into mind. So, it is proposed in this area to offer opportunities for the private sector along with providing possible support and motivate them to invest in the environmental field through the establishment of investment national or shared companies in the field of recycling solid and liquid wastes, renewable energy and environment-friendly industries that lead to the preservation of the environment and the provision of primary sources of industry, agriculture and poverty alleviation. We note here that there is a movement toward improving fuel through the project of clean fuel between the General Authority for Environment Protection and Oil company by improving the outputs of oil refineries, that some of them started to apply

the proposed criteria.

**Context & Constraints:**

There are no laws or legislations on this aspect. Therefore, it is necessary to include laws and regulations for the assessment of these effects. It is must also to work on implementing them on reality through activating the laws.

It is proposed that government or national authorities have to take systematic actions to include the procedures for disaster risk reduction in national sustainable development plans in key areas such as combating poverty - housing - water - cleanliness - energy - health - agriculture - infrastructure - the environment, to ensure that the development will not contribute in making future disasters.

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# Europe

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## Armenia (in English)

### Level of Progress achieved:

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

### Are the impacts of major development projects on disaster risk assessed?

Yes

### Means of Verification:

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### Description:

In the republic there are structures initiating the mainstreaming of disaster risk reduction into national development plans and programs for sustainable development in strategically important areas of economics and management such as: social and domestic, energy, agriculture, medicine, infrastructure and environment. As a basis the following motto is considered: Development should not cause new disasters.

Yes, the impact assessment of major development projects on risk reduction is carried out, but with varying completeness and limitations in capacity and resources.

The practice of assessing the impact on the risk of disasters in the last decade shows that the impact of major projects linked to the most dangerous and frequent natural and man-made processes, as well as synergistically secondary processes, and potentially vulnerable to their technical systems.

It is necessary to define the following major strategic directions of impact assessment on risk reduction:

1. Establish procedures for adopting measures to eliminate the consequences of accidents on the waterworks and the compensation of possible damage. Formulation of recommendations of the legal, technical, and institutional regulation in the area of prevention, prevention and mitigation (International Programme of the CIS countries, paragraph 3.1.1. The Committee of Water Resources, RA, 2005-2006)..
2. Evaluation of design features, condition, stability and operational safety of dams and reservoirs landfall. Recommendations to restore some of the most dangerous elements of dams, the degree of abrasion of the coast, the risk assessment of a possible breakthrough, and the danger of flooding in 56 most bulk reservoirs of RA. Development of measures for signaling and early warning of people about possible dangers.

The project is implemented under the advisory and financial support from the research company of the UK Hydroproject JSC, Giprovodhoz "NICK" Drainage ", PAS MOE RA, the Committee of Water Resources of the Republic of Armenia, 2003-2005.

3. Local Projects: a) the restoration of sustainable bottom culvert dam reservoir Karnutskogo Shirak marz, Office programs SCWS Ministry of Territorial Administration, Inc. Hydroproject, ArmNIISiZS, 2006 b) Evaluation of the stability of the landfall reservoir "Dzhogas in Tavush RA from the image of the coastal slopes and landslides - JSC Giprovodhoz "ArmNIISiZS, "Monitoring" of the Ministry of Nature Protection, SSA MOE RA, 2006, c) Rehabilitation and reconstruction of the dam reservoir "Marmarik, an important project for the irrigation of Kotayk marz - TIG Armenia, Ltd. Hydroproject, State Water Committee MTU RA, PAS MES RA with an estimate of the problems lay ground, landslides and landfalls in the reservoir and the measures to prevent possible breakthrough and advance warning of the population.

II Irrigation Systems

Serious threat to the system of irrigation and water-transport sites and installations are of natural and man-made factors (processes) and anthropogenic activities. As examples:

1. Development projects of fisheries in Ararat marz. To date in the region there are over 80 ponds for fish breeding farms, which cater to the consumption of substantial reserves of groundwater and artesian water in the region, violating the natural water balance of strategic stocks and an irrigation regime of agricultural crops and pasture.

2. Malfunctioning of irrigation canals and drainage systems considerably damages the areas prone to alkaline. Overflowing water canals, leaks from damaged fixtures leads to disruption of the irrigation regime, as well as to swamping of large areas, flooding homes and villages, intensify malaria.

In 2002-2003 "Drainage" scientific commission of RA Ministry of Agriculture has developed and implemented measures to restore 82% of irrigation and drainage communications systems of the Ararat region, which greatly reduced the risk of desertification and salinization of areas.

The irrigation systems in Aragatsotn, Tavush, Kotayk, Syunik regions are in difficult conditions (for the reasons mentioned above). Complex stress-strain state, the seepage losses of water along the route (mines 8 and 10) tunnel diversion of waters of the Arpa River into Lake Sevan leads to a significant loss of water and swamping of areas adjacent to the zone of the channel.

Due to state funding monitoring studies are carried out along hydro-technical tunnel highway, measures to heal the strained construction sites are developed.

### III Transport communications, highways, railway tracks

Vulnerabilities and operational reliability of transport communications of the Republic is disrupted and complicated (mostly) by activation of exogenous natural phenomena. Below are examples of domestic exposure to the risk of disasters caused by natural and manmade factors complicating the reliability of transport communications:

1. Software project evaluating the reliability of transport links with the manifestation of geodynamic and seismic activity and synergistically related to natural processes. Recommendations for prevention, rehabilitation, temporary use of duplicate transport lines (PAS and NSSP RA MOE, 2002).

2. Draft assessment of possible violations of operation of the railway tracks Yerevan-Tbilisi, depending on the stress-strain state anti-mudflow galleries and roadway on the 237 km due to the activation of landslides on the slope (PAS MOE RA, AO Arminzhproekt, 2003).

3. The above-mentioned project impact assessment of landslide damage the integrity of a strategic railway route Ijevan-Razdan near Haghartsin villlage have the same name and the bypass road around Haghartsin, the risk of damming the river (PAS MOE RA, JSC Arminzhproekt, IGS NAS, 2002 and 2003 .). Activation of the landslide began in 1991.

4. The draft risk assessment of landslide and subsidence of manifestations of the roadway Yerevan-Lori at 182 km with recommendations for recovery and stabilization of landslides (Ministry of Urban Development, PAS MES RA 2010).

### IV. Objects of the mining industry

The impact of major projects in mining is connected with disaster risk stability and reliability of tail dams, accident-free work surface and underground drainage facilities, as well as the stability of open pit mining. Assessing the impact on risk reduction efficiency projects and open pit development (career) development of the deposits are the prerogative of Mining and Metallurgical Institute, in partnership with ARS MES RA. Assessing the impact on risk reduction projects in developing facilities mining industry is reflected in the following studies:

1. Parameter estimation for the safe operation of mining facilities of Armenia (State Design and Research and the Research Institute of Armenia, 2002).

2. Assessment of the environmental safety of operating and abandoned tailings Armenia (OJSC "Mining and Metallurgical Institute, 2008).

3. Mechanisms to reduce the risk of environmental disaster associated with the design, construction and operation of mining and processing enterprises (PAS MES RA 2009).

### V. Assessing the impact on disaster risk of tourism infrastructures

Assessing the impact on disaster risks on the development of tourism infrastructures mainly linked to the manifestation of landslide and, in part, mudflows, as evidenced by the example below.

Armenia is called "open-air museum", which is associated with 18 protection zones of nature reserves and national parks and numerous unique monuments of the Middle Ages. In addition to careless attitude of the population and, in part, of state allowing the use of protected areas under the construction, development of domestic objects and entertainment destination, often under development are assigned territories which are certainly dangerous in the manifestation of natural processes:

1. Engineering studies on the territory of the monastery complex "Makaravan in Tavush region in the landslide area, with research to assess risk factors for activation of landslides and erosion, development of mechanisms for monitoring control and engineering of protective measures to stabilize the landslide and the restoration of the tourist complex (Program Project AR (02 - 11) UN Programme on Partnerships in the implementation of development programs at the community level, "NEC" geo ", 2003-2009.).

2. Seismicity and archaeology in the case of Armenia (Financial support for international scientific cooperation PYCS France, NICK "geo", 2003-2005).

3. Risk assessment of activation of landslides in the area of construction of cableway unique length of 4,5 km from the two terminals and trim the intermediate supports. The construction is being built in an ancient landslide area. Geological, geomorphological and geotechnical studies revealed risks of landslides intensification. Expertise exhibited requirements for the implementation of pre-engineering protection to reduce operational risk.

Disaster risk is taken into account in assessing the environmental impact assessment (EIA).

In this position of the section the following should be noted:

1. improvement of techniques of integrated risk assessment of:

- Heavy metals in urban areas;

- Natural and man-made radioactivity in Ararat Valley;

- Biogeochemical flow of dangerous elements in the ecosystem (MP organizations of CIS countries, paragraph 3.1.1., TSENI NAS, 2005-2006).

The aforesaid position includes the assessment of pollution in urban areas of the republic, its zoning on the degree of contamination, selection factors and populations at risk, mapping in M 1:10000 criteria for the sustainability of ecosystems to anthropogenic factors, methodology of early diagnosis of desertification processes, impact assessment of mining enterprises on the environment and technology of antifiltration barriers at tailings.

2. Methodical instructions on calculation of pollution in case of accidents on chemically hazardous objects. Development of a technique of automated calculation of the degree of contamination of territory by chemically dangerous objects.

Assessment of risk of possible accidents at chemically dangerous objects, measures to reduce it and protect the population at risk. Safety data sheets to include the mechanisms to prevent emergencies (MP organizations of CIS countries, PAS MOE RA, 2005-2006).

3. Organization structure and methodological support of the Center for Monitoring SNLK involving relevant agencies of ministries, departments and research institutes of RA (inter-governmental organizations of CIS countries, ARS MES RA).

#### **Context & Constraints:**

Conceptual problems of national and cooperative structures are conditioned with lack of comprehensive risk assessment program and priorities in developing projects and programs for disaster prevention, ensuring the development of the state in socio-economic terms, while providing a stable environment.

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## **Bulgaria** (in English)

#### **Level of Progress achieved:**

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

#### **Are the impacts of major development projects on disaster risk assessed?**

No

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

Building regulation to be adopted in order to solve the urban problems by the Council of Ministers;

Council Directive 2008/114/EC of 8 December 2008 on the identification and designation of European critical infrastructures and the assessment of the need to improve their protection has been implemented in the Bulgarian law.

**Context & Constraints:**

n.a.

## **Czech Republic** (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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

All these impacts should be taken into account, however implemetation may differ from region to region. It also depends on concrete situation whether the region was hit by some disaster recently or whether it is a long time interval from the last disaster.

**Context & Constraints:**

Assessments of impact of projects such as dams, highways, etc. is compulsory but sometimes stroger enforcement of such rules could be missing.

## **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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

Finnish legislation in the Act on Environmental Impact Assessment Procedure applies to all projects that may be expected to have considerable negative environmental impacts. The related Decree on Environmental Impact Assessment Procedure lists the types of projects that must always be subjected to EIAs, such as motorways, airports, large harbours, and major poultry- and pig-farming facilities. In EIA also the accident risks should be assessed. New legislation covering environmental assessment of authorities' plans and programmes came into force in Finland on 1.6.2005. The new legislation aims:

- to ensure that environmental impacts are assessed and duly considered during the preparation and approval of authorities' plans and programmes,
- to improve the availability of information, and provide more opportunities for public participation in planning and
- to promote sustainable development.

**Context & Constraints:**

The securing the functions vital to society is ongoing process where the vital functions are reassessed every four years.

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## Germany (in English)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

For the "Federal Ministry of Transport, Building and Urban Affairs" (BMVBS: see link), the waterways are

critical, as well as shipping and air traffic. Risk assessment for projects related to the construction of waterways and dikes are standard and specified in DIN-Norms. DIN 1055-9 contains principals for assessing risk during the development of construction projects, while at the same time considering the interdependency of building projects in the area of shipping traffic. Similar assessments have to be accomplished in air traffic.

In the case of the railway system, wildfire risk assessments are in place because German infrastructure and economic activities are at a high risk of being affected by railway-caused wildfires. This network includes German Railway operations and infrastructure, adjoining industrial and private infrastructure, forests and cultivated lands. Therefore the implementation of vegetation management alongside railroad tracks aimed at reducing wildfire hazards, however, is often in conflict with nature conservation goals.

For nuclear power plants a site specific hazard assessment has to be completed, based on the national regulation "KTA 2201" from the national reactor safety commission and according to the knowledge of science and technology. KTA 2201 from 1990 is currently under revision.

The oft-cited guide, "Critical Infrastructure Protection: Risk and Crisis Management" and other projects for the protection of critical infrastructures from the "Federal Office of Civil Protection and Disaster Assistance" (BBK: see the link below for an overview) aim to conduct risk assessments for infrastructure. The "Competence Center on Global Warming and Adaptation" (KomPass) of the "Federal Environment Agency" (UBA: see links) provides guidance for first approaches to risk assessment concerning climate change.

The global programme DIPECHO funded by the European Commission Humanitarian Aid aims at reducing disaster risk in developing countries. The Federal Government has contributed to the "EU Strategy for Supporting Disaster Risk Reduction in Developing Countries".

Since September 2009 a climate-check guideline of the "Federal Ministry for Economic Cooperation and Development" (BMZ) came into force. During the initial phase until August 2010 new and drafted projects has to be checked against potential consequences of climate change. Here it is checked which project components are exposed to considerable climate change risks. For this purpose a checklist was developed. Since August 2010 it is furthermore foreseen: 1) to conduct a detailed risk assessment, 2) to prioritize adaptation measures and integrate theses into projects, 3) to monitor and evaluate. The guideline is applicable to the main strategy papers and obligatory for the BMZ as well as for the German implementing Organisations.

Altogether many of these strategies are still being fine-tuned, but have mostly been implemented.

Additionally supporting these strategies, the "Federal Foreign Office" (AA) and the German development cooperation maintain the goal of implementing DRR in development cooperation through assessments in their approach to sustainable development. The "KfW Entwicklungsbank" (see link) conducts an environmental and social compatibility assessment for each of its projects.

### **Context & Constraints:**

The challenges for German policy in regard to DRR in development projects are similar to those in the previous Core Indicators. Changing land-use patterns and diversified responsibilities bring forth challenges for the Federal Government, the Federal States and the communities as well as private individuals. There are approaches to conducting assessments in critical infrastructure and the most endangered development projects but not on every level. In the case of road construction there are risk assessments and norms concerning pavement, fixation, safety, etc., but DRR is only a matter in endangered areas such as mountains and not applicable for the whole country. The official environmental impact assessment contains the effects of major development projects on nature, but there is no specific risk assessment for the impact

of large projects on the disaster risk.

Related links:

KfW - Entwicklungsbank [http://www.kfw-entwicklungsbank.de/EN\\_Home/index.jsp](http://www.kfw-entwicklungsbank.de/EN_Home/index.jsp)

KomPass [http://www.anpassung.net/cln\\_110/sid\\_898FE92E8D323C42F8038057C9DF1E46/DE/Home/homepage\\_\\_node.html?\\_\\_nnn=true](http://www.anpassung.net/cln_110/sid_898FE92E8D323C42F8038057C9DF1E46/DE/Home/homepage__node.html?__nnn=true)

UBA <http://www.umweltbundesamt.de/index-e.htm>

BBK - Critical Infrastructure [http://www.bbk.bund.de/cln\\_027/nn\\_398004/DE/02\\_\\_Themen/06\\_\\_Kritische-Infrastrukturen/Kritische-Infrastrukturen\\_\\_node.html\\_\\_nnn=true](http://www.bbk.bund.de/cln_027/nn_398004/DE/02__Themen/06__Kritische-Infrastrukturen/Kritische-Infrastrukturen__node.html__nnn=true)

BMVBS <http://www.bmvbs.de/en>

EU Strategy Supporting DRR in Developing Countries (2009):

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0084:FIN:EN:PDF>

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## Italy (in English)

### Level of Progress achieved:

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

### Are the impacts of major development projects on disaster risk assessed?

Yes

### Means of Verification:

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### Description:

The authority competent for assessing the disaster risk impact of major development projects is the Ministry for Infrastructure and Transport. The Ministry is also responsible for developing standards and procedures concerning the design and implementation of infrastructures. It works side by side with the regional and local authorities, other ministries as well as public and private companies to improve the capability to assess the impact on disaster risk of development and infrastructural projects.

### Context & Constraints:

The capacity to assess disaster risk impact of infrastructural and development projects has been enhanced through the implementation of new rules related to Environment Impact Assessment. Further improvements will follow in the next years as long as cooperation in this field becomes more structured.

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## Norway (in English)

### Level of Progress achieved:

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

## Are the impacts of major development projects on disaster risk assessed?

Yes

### Means of Verification:

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### Description:

Disaster risk reduction measures are integrated into national sustainable development strategies, plans and programmes in key areas such as poverty reduction, housing, water, sanitation, energy, health, agriculture, infrastructure and environment to ensure that development does not create further disasters. According to the new Plan and building act (2009), risk and vulnerability analyses must be carried out before new development projects can be started, and it is required to make an analysis of consequences for the environment of new development projects.

### Context & Constraints:

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## Poland (in English)

### Level of Progress achieved:

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

## Are the impacts of major development projects on disaster risk assessed?

Yes

### Means of Verification:

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### Description:

Procedures are include on the level of planning process

### Context & Constraints:

Impacts of disaster risk are taken into account in Environment Impact Assessment. Sometimes these procedures are very long and such situation causing problems within area of implementation (construction) and financing.

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## 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

**Are the impacts of major development projects on disaster risk assessed?**

-- Nothing reported within this timeframe. --

**Means of Verification:**

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

In 2008 The National Strategy for Sustainable Development was developed. This strategy governs the incorporation of disaster risk reduction elements into all programs concerning populated areas. The current development plans and programs for cities, industry and infrastructure take into account the results of the environmental impact studies

**Context & Constraints:**

See above.

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**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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

There are no specific regulations within the Environmental Code regarding EIA or SEA that focus on risk management or risk reduction. However, during the screening process for a SEA and when assessing significant environmental effects of implementing a project, plan or program, addressing even risk reduction issues is expected.

All administrative levels are engaged in climate change adaptation projects and programmes. Municipalities are working towards integrating climate change adaptation into their spatial planning process including impacts of building projects. The Swedish Civil Contingencies Agency has made two publications

regarding planning that takes risks into consideration. The National Board on Housing Planning and Building has written reports about building with climate change adaptation in mind.

The Geological Survey of Sweden has government instructions to provide society with the geological information needed in planning in both the short and long-term perspective. SGU has a shoreline model that shows the future distribution of the land and sea. The government has given the Swedish Geotechnical Institute (SGI) the task of supporting the counties and municipalities with the review of geotechnical safety issues in planning documents.

**Context & Constraints:**

All major development projects need to take into account the risks associated with a changing climate and assure that measures are taken to protect people, the environment and property. It is desirable to develop guidelines on how to build in a changing climate. Some work has already been done by the Swedish National Board of Housing, Building and Planning.

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**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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

Procedures of approval, authorisation and granting concession for planning and building of facilities are in place, which take into account disaster risk reduction. They foresee the participation of various actors (including the civil society and non-governmental organisations), authorities and special departments of all political levels. Major projects such as dams, highway, infrastructure, tourism development, energy etc. receive thorough assessments. An Environment Impact Assessment is been carried out for all major facilities. It asks for, among others, emergency management.

In case of reconstruction or new construction, house owner in disaster prone areas are obliged to apply protection measures for their building. Furthermore, they have to prove that the measures do not harm others.

**Context & Constraints:**

The fact that disaster risk reduction and environment impact assessments are overseen at the Federal level by FOEN, allows an easy integration of environmental and disaster risk related verifications.

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**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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

There is institutional commitment as well as substantial achievements regarding the risk assessment process on the public infrastructure, such as dams and roads.

Also, 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.

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.

NPDRR secures coordination among stakeholders in terms of incorporating DRR measures in existing procedures, and developing appropriate strategies, policies, legislation, methodologies, assessments, scenarios, plans and procedures.

Within NPDRR, the Ministry of Transport and Communications coordinates the Specialized Platform on Risks in the domain of infrastructure, dealing with: earthquakes; landslides; security of telecom and IT networks; water safety; electric power and gas; sewage; floods; traffic accidents; railway accidents; air traffic accidents; lake accidents; public and residence buildings.

The Ministry of Agriculture, Forestry and Water Management is coordinating the Specialized Platform on Risks in the Domain of agriculture, forestry and water management, including: epizooties; epyphities; forest fires; channels and dams; low and high temperature extreme weather conditions.

The Ministry of Health is responsible for coordinating the Platform on health related risks: epidemics; mass injuries; stress and trauma; food safety; water safety; safety and availability of medicines, materials and equipment.

**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.

Also, due to legal and institutional gaps there was a lack of coordination between the relevant institutions, which resulted with overlapping of competences and poor quality in the process of control of development and construction of crucial infrastructure.



# Oceania

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## 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

### Are the impacts of major development projects on disaster risk assessed?

Yes

### Means of Verification:

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### Description:

The Australian Government is investing in gathering information about national infrastructure and buildings to support hazard risk analysis by governments, businesses and communities. Examples of capabilities and work in this area include:

- a national risk assessment of the vulnerability of Australia's infrastructure to climate change has commenced. The first infrastructure sector to be assessed is transport;

- several case studies have been commissioned to assess the economic costs of climate change adaptation. The first of these studies assesses the likely impact of flooding around the studied area, various adaptation options to reduce the impact, and the timing of implementing measures to achieve maximum benefit;

- the Australian Government report 'Climate Change Risks to Australia's Coasts', released in November 2009, provides the first continental scale mapping of residential buildings at risk from climate change. It also details the risks to coastal infrastructure, services and industry as a result of climate change; and

- Geoscience Australia has the capability to develop an understanding of what assets, business activity and people are exposed to potential or actual disaster events, how vulnerable they are to the hazard and the likely physical and economic consequences. The agency develops engineering, economic and social vulnerability models for the built environment that are representative of buildings, critical infrastructure and the economic activity associated with them.

### Context & Constraints:

The assessment of major development projects is generally the responsibility of the relevant State, Territory and local government. Some significant projects are also subject to assessment by the Australian Government, on environmental and other grounds.

The criteria by which projects are assessed may be specified by the relevant legislation, or developed by the relevant government agency. Such criteria might be relevant to disaster risk impact of the project, such as the type of construction of any structure, safety of the project, impact on neighbouring properties, control of pollution, safety of persons on or in the vicinity of the facility etc.

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## Cook Islands (in English)

### Level of Progress achieved:

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

### Are the impacts of major development projects on disaster risk assessed?

Yes

### Means of Verification:

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### Description:

Human activities have contributed to pressures on the environment that could worsen the effects of climate change and sea-level rise, including mining of sand, coral and gravel aggregate from the beaches for construction contributing to coastal erosion and lagoon sedimentation; and foreshore development, resulting in reclamation of land for construction and inappropriate sea walls being major problems on Rarotonga and Aitutaki. However, major development projects such as dams, highways or mining, do not currently pose a relevant concern for the Cook Islands.

Ministry of Infrastructure and Planning (MOIP) is set to integrate hazard and risk assessments in the planned harbour development in Mangaia. 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 tourism sector, every tourist operator needs to have a disaster response plan in place in order to receive accreditation.

### Context & Constraints:

There is a growing awareness that disaster risk impacts need to be considered especially with infrastructure projects. One of the five broad strategic directions of the Budget Policy Statement for 2011/2012 is to “Develop infrastructures that will support economic growth underpinned by environmentally sustainable practices.”

The Cook Islands Budget Policy Statement for 2011/2012 states:

“Infrastructure development is often the big ticket spending item in a budget. However, despite our budgetary constraints, Government recognises the role of infrastructure development in accelerating and supporting economic growth. Our endeavours in this area must take into consideration the impacts of development on our environment, putting into place measures that will reduce our risks against disasters and allow our communities to adapt against the threats of climate change.”

Budget 2011/2012 will progress on the following infrastructure developments:

- Addressing waste, recycling and sanitation
- Implement the road and water program
- Address medium to long term planning for investment in the water sector, including upgrade of existing intake systems

- Implementing renewable energy initiatives
  - Implement the upgrade of Mauke and Mitiaro harbours under Cyclone Recovery and Reconstruction Program
  - Improve the project planning and enforcement for all infrastructure projects with a designated unit to be established for the Pa Enua within MOIP
  - Re-examine key findings of the Preventative Infrastructure Master Plan including a governance framework
  - Improve the strategic and operational management of our assets
  - Completion of policies and updating of relevant legislation and regulations, and
  - Implement required ICT improvements.
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## **Fiji** (in English)

### **Level of Progress achieved:**

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

### **Are the impacts of major development projects on disaster risk assessed?**

Yes

### **Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### **Description:**

The EIA legislation is comprehensive and requires risk reduction considerations in construction of major infrastructures and developments. Technical agencies have strong technical capability to design and implement appropriate risk reduction measures. However enforcement and monitoring are weak, due to limited capacity in DOE. At times developers don't fully comply with EIA -DRR requirements.

Major development projects have to follow the approval process of the government. A weakness in the EIA process is the absence of guideline or outlines on accepted standards of impact assessments.

One impact assessment system in place targets structural impacts. The Health Department does risk auditing as a routine activity on its lifeline services; since recently this includes DRR assessments resulting in shifting the Navua hospital to a safer location. The transition of the Water Department into the Water Authority of Fiji is a reform to better address risk on water services. The WAF does cost benefit analysis including DRR for all new projects/investments ensuring structural integrity from design to construction. However this is not systematic as generally very little DRR planning is in place eg no rules and regulations for underground water resources extraction (boreholes). Agriculture is implementing measures to confine and control diseases as identified in its planning of DRR measures as with the new potato development.

Education, in partnership with school committees, incorporates DRR and cost benefit analysis as a standard practice in building new schools. It also invests in retrofitting schools against floods and cyclones but a pilot project in Suva on retrofitting against earthquakes is yet to fall into mainstream activities. Post disaster awareness exists.

The myriad of activities indicate that DRR impacts are being considered in major infrastructure development projects and that more effort is needed in improving assessment and in monitoring compliance to progress DRR implementation substantially.

### **Context & Constraints:**

The EIA when applied diligently should comprehensively cover inclusion and implementation of DRR in development projects. It's a new legislation and hence as expected there are teething problems in the effective implementation of such a comprehensive legislation. Foremost is in-house capability and capacity and a related issue is the non-regulated assessment methodology applied by various agencies doing EIA studies eg impact cost not reflecting true total cost. Other checks and balances need to be instituted.

All sectors are aware that the impact of disaster risk is taken into account in EIA but the cost benefit of DRR is not yet incorporated into planning of public investment. In practice assessing the impact of disaster risks does vary a lot for the assessments are not guided by an agreed standard though government has stipulated that the CHARM approach should be applied. NDMO has no expertise in CHARM application and training in CHARM is stalled because of this. Perhaps it is because there is a lack of analysis of hazard impacts and the potential economic impacts on projects if disaster strikes that is withholding agencies from routinely incorporating DRM considerations into planning processes.

On existing constructions budget for retrofitting has to be sourced from maintenance provisions as there is no retrofitting provisions from national budget. Two immediate key challenges then are the need to apply CHARM and to ensure compliance nationwide in the use of the building code. NDMO will need technical support specific to these tasks.

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## **Marshall Islands** (in English)

### **Level of Progress achieved:**

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

### **Are the impacts of major development projects on disaster risk assessed?**

Yes

### **Means of Verification:**

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

### **Description:**

The EPA's Environmental Impact Assessments (EIAs) take DRR into consideration to some degree; however the limited capacity of the EPA to enforce EIA regulations is limited. EIA's also tend to focus more on environmental impacts rather than disaster risk vulnerability. Developments have been disallowed by the EPA in the past due to EIA criteria not being met, however, this is still rare, and most developments still go ahead, mainly due to the limited capacity of the EPA to enforce regulations. It could therefore be argued that the procedure is in place to assess disaster risk impacts of developments (via the EIA process), but the capacity to enforce the procedure in practice is limited.

The land tenure system allows traditional land owners to decide on the use their land, thus the EPA and

local governments have limited power at the local level (see below).

**Context & Constraints:**

A further challenge mentioned by the EPA is that of conflict of interest. Given the small population of the RMI, many people are related to each other, and it is difficult for the EPA to enforce regulations on members of their family, or close connections of their families. Land issues are also highly sensitive in the RMI and it is difficult to advise land owners how to use or develop their own land. A challenge among others is therefore public awareness of why the regulations exist and what sustainable development means, i.e. to maintain a healthy and safe environment and to ensure future generations have access to resources such as water, food and land.

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**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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

New Zealand has, over the last twelve years, developed significant lifeline engineering projects that address risk reduction for critical infrastructure. Following developments in the U.S.A., the New Zealand Centre for Advanced Engineering initiated a lifeline engineering project in the Wellington area. Wellington, the capital, is particularly exposed to earthquake and slope stability hazard risks. The Wellington project piloted, for New Zealand, the establishment of hazard reviews across all lifeline sectors, the formation of sectorial work groups, the establishment of an Engineering Lifeline Group, and the expenditure of significant funds to improve lifeline resilience. Following the Wellington successes, additional lifeline engineering groups have been initiated across most of New Zealand. All involve public and private lifeline utility operators.

The Lifeline Engineering Projects have resulted in a number of improvements to infrastructure, including:

- strengthening transport infrastructure, such as motorway bridges;
- increasing resilience of energy infrastructure, including electricity, gas and fuel oils
- improving the resilience of bulk water supplies, including reducing risks by decommissioning reservoir dams now known to be built across active faults
- improving the resilience across sectors by strengthening road bridges that carry services additional to road traffic, such as water, power, gas, and telecommunications.

The significance of lifeline utilities is recognised in the Civil Defence Emergency Management Act 2002. All Lifeline Engineering Projects are recognised by, and are integrated with, their respective local Civil Defence Emergency Management Groups' structures and planning (Lifeline Utilities link below).

The Government has also recently established a national Environmental Protection Authority able to consider environmental approvals for proposals that are of national significance. The criteria include proposals that will assist the Crown in fulfilling its public health, welfare, security, or public safety obligations and functions.

**Context & Constraints:**

A major challenge is to progress lifeline engineering actions beyond the current reduction (prevention) and readiness (preparedness) focus. A need for lifeline engineering coordination during the response and recovery phases is recognised, and the establishment of a pool of lifeline coordinators is underway.

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**Samoa** (in English)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

In protecting and enhancing the built environment, the main role of the planning system is to set in place the National Environmental Policy Framework [Land, Survey and Environmental Act 1989, National Environmental Management Strategy (NEMS) 1994 and Samoa Development Strategies] and controls [Building Code, PUM Act 2007, EIA Regulation 2007] to guide decision making about new use and development through the Development Consent process. The Development Consent is a legal document that gives permission for a use or development on a particular piece of land in Samoa and the developer must go through development assessment process.

All development activities are also required to seek approval for building permit and undergo fire risk assessments. Major development projects must also provide an environmental impact assessment report include stated mitigation measures to reduce the impact of any hazard and or risk to the surrounding environment (neighbouring lands and families, and locations nearby) and country as whole, as stipulated in the EIA Regulation 2007.

**Context & Constraints:**

The absence of an effective mechanism to ensure compliance and code enforcement will continue to root this indicator at level 1, because without this unsafe practices will continue to undermine DRR efforts. Stakeholder and political commitment is crucial and requires immediate attention.

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**Solomon Islands** (in English)

**Level of Progress achieved:**

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

**Are the impacts of major development projects on disaster risk assessed?**

Yes

**Means of Verification:**

\* Yes: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* Yes: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

Environmental Impact Assessments are a legal requirement for all development projects since 2008 as per the Environment Act and its regulations. Examples of this were given; Goldridge mining applies an EIA; a feasibility study was done for a proposed hydro-project that included aspects of DRM. Prospective developers must go through the investment board to get a permit; then they must seek approval from relevant agencies including the Ministry of Environment (MECDM). As per a recent government gazette, the NDMO now comes under MECMD. Despite the legislation, non-compliance by investors remains a major issue.

As a general rule, current procedures tend to focus more on potential environmental impacts from a conservation/protection perspective and less so on disaster risk. It was highlighted that EIAs are more likely to be conducted thoroughly and appropriately for projects that have external donor support.

**Context & Constraints:**

Implementation and enforcement remains a challenge in terms of assessment of major development project impacts on disaster risk. One participant of the multi-stakeholder workshop commented that policies have “no teeth or false teeth”. Limited enforcement and monitoring capacity is a feature of ongoing governance challenges that exist in the Solomon Islands.

The logging code of practice (Ministry of Forests) is legislated but monitoring is limited and it is felt that illegal logging may be an ongoing issue. The governance structure and limited staff capacity of the Ministry of Forestry may require attention in order to remedy this. There is generally a good level of awareness that flash floods and landslides are linked to logging and deforestation. There are some measures in place to tackle this issue, but more still needs to be done.

Projects/investments supported by the national budget require more rigorous EIA monitoring. The establishment and enforcement of building codes is also necessary.

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

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

**Are the impacts of major development projects on disaster risk assessed?**

-- Nothing reported within this timeframe. --

**Means of Verification:**

\* No: Assessments of impact of projects such as dams, irrigation schemes, highways, mining, tourist developments etc on disaster risk

\* No: Impacts of disaster risk taken account in Environment Impact Assessment (EIA)

**Description:**

According to Vanuatu's National Disaster Risk Management Arrangements, all national development programmes and projects are subject to the formal risk management process of risk identification, risk analysis and risk evaluation, and that appropriate risk treatments be applied to the evaluated risks to ensure that identified risks are either eliminated (prevented) or reduced (mitigated) as far as is practicable. The National Disaster Risk Management Council will be responsible for providing policy advice and guidance to the responsible Minister on all matters relating to disaster risk reduction.

This shall be achieved through the development and maintenance of a National Risk Reduction Plan based on the identification, analysis and evaluation of underlying risks to national development and vulnerabilities within Vanuatu. The plan should identify and monitor priorities for disaster risk reduction and allocate specific responsibilities to key agencies for the implementation of mitigation programmes consistent with national policies and priorities endorsed by the National Disaster Risk Management Council and approved by the Council of Ministers. The risk reduction planning process will take note of the need for:

- Reducing the underlying risks to the Priorities and Action Agenda (2006 – 2015).
- Incorporating the key actions contained in the Disaster Risk Reduction and Disaster Management National Action Plan (2006 – 2016) and the designated responsible agencies taking appropriate actions to ensure their successful implementation.
- Adopting appropriate adaptation measures to deal with the emerging risks associated with Climate Change and Climate Variability.
- Applying available regional risk management decision-making tools such as Comprehensive Hazard and Risk Management (CHARM).
- Embracing and applying as appropriate modern technologies such as GIS, satellite sensing and photography.

Environmental impact assessment procedures stipulate for geological hazards to be assessed on all development work prior to approval, particularly if it were to alter significantly the environment such as coastal dynamics and pollution of water resources.

**Context & Constraints:**

The implementation of the national disaster risk reduction policy as stipulated in Vanuatu's National DRR and DM Arrangements is yet to start in view of technical, human and financial resource constraints. Major development projects such as major roads, mining, and tourist developments are not yet systematically subject to risk assessments, albeit may occur in the case of selected bilateral assistance for such developments.