

# Georgia

## National progress report on the implementation of the Hyogo Framework for Action (2009-2011)

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# Strategic goals

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## Area 1

*The more effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction.*

### **Strategic Goal Statement 2011-2013:**

Georgia is no stranger to the consequences of disasters &#8211; annual flooding, earthquakes, and the challenges of erosion, land management, food security and inadequate construction practices have highlighted the necessity to not only react expeditiously to disasters, but to implement proactive mechanisms that can work to prevent disasters and ameliorate their effects when they do occur. Georgia has made substantial progress in the last years but more work is needed to create effective and sustainable systems, platforms and mechanisms to reduce disaster risk and disaster losses in lives and the social, economic, and environmental assets of the country and its communities. Georgia have committed themselves to the Hyogo Framework for Action (HFA) 2005-2015: Building the Resilience of Nations and Communities to Disasters, and its accompanying priorities for action that States and other stakeholders should take into consideration in their approach to Disaster Risk Reduction (DRR). It encourages, and provides guidance for, the development and implementation of measures to strengthen capacity development in the most vulnerable regions, to address the social, economic and environmental factors that increase vulnerability, and to develop measures that will enable them to prepare for and cope with natural disasters, including those associated with earthquakes and extreme weather events. The United Nation Development Assistant Framework (UNDAF) therefore utilizes the recommendations of the HFA to inform and guide DRR in Georgia through a strong partnership among the UN agencies, with the civil society and other stakeholders. The key outcomes and planned activities closely follow the HFA.

## Area 2

*The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards.*

### **Strategic Goal Statement 2011-2013:**

Disaster risk reduction and environmental and natural resource management go hand-in-hand. Environmental and natural factors or processes, such as climate change, can increase the susceptibility of a country or community to the impact of hazards. The Government of Georgia has recognised that its national security depends inter alia on policies that address the sustainable protection of the environment and management of its natural resources. This is reflected in the UN system&#8217;s action plans in the UNDAF: only through a comprehensive approach committed to sustainable development through poverty reduction, good governance &#8211; issues addressed in the first two UNDAF thematic areas &#8211; as well as environmental and natural resource management and protection, can disaster losses be prevented or significantly mitigated.

## Area 3

*The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities.*

### **Strategic Goal Statement 2011-2013:**

National Development Priorities:

- To prevent or mitigate disaster risks.

- To effectively prepare for and respond to mitigate the damage and loss caused by emergency situations through unified management.
- To work towards the full implementation of the United Nations Hyogo Framework for Action 2005-2015. To implement sustainable measures to manage and prevent the substantial depletion of natural resources and environmental pollution

## Priority for action 1

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

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### Priority for action 1: Core indicator 1

*National policy and legal framework for disaster risk reduction exists with decentralised responsibilities and capacities at all levels.*

#### Level of Progress achieved:

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

#### Means of verification:

- \* Is DRR included in development plans and strategies? Yes
- \* Yes: National development plan
- \* No: Sector strategies and plans
- \* No: Climate change policy and strategy
- \* Yes: Poverty reduction strategy papers
- \* Yes: Common Country Assessments (CCA)/ UN Development Assistance Framework (UNDAF)

#### Description:

Peculiarities of Georgia's geographical location and its complicated relief promote various scale natural disaster, their high hazardous risk and frequency. The territory of Georgia regarding negative impacts scale caused by disaster belongs to the special region among the mountainous countries of the world. Disasters (Floods, flash floods, landslide, mudflow, heavy rains, droughts, snow avalanches, hail, strong winds) cause serious damage to the economy and frequently are followed by human losses.

In 25 June 2010 Government of Georgia adopted State Strategy on Regional Development of Georgia for 2010-2017. The Strategy is a medium term document which determines the main principles, priorities and tasks of the regional development policy of Georgia and defines favourable conditions for sustainable development of country. The document states improvement of the natural catastrophes and disasters risks management as one of the key priorities of the government policy. According to the Strategy: "Monitoring and early notification systems should be introduced in the risk zones, emergency action plans should be developed, and respective preventive actions should be planned and carried out. Risks caused by extreme natural events (drought, hail, high speed wind, etc) and natural disasters/geodynamic processes (flood, landslide, mudflows, etc) and their impact should be assessed and considered in sustainable development strategies and action plans of regions."

Scientific studies defined that during the last decades, on the background of global climate change, anthropogenic influence on the environment (deforestation, mining, unbalanced urbanization, land-usage without assessment of environment impact) and powerful earthquakes frequency and intensity of the Hydrometeorological and Geological disasters as the shoreline erosion has significantly increased.

National Environmental Agency (NEA) of the Ministry of Environment Protection and Natural Resources (MoE) carries out the monitoring and forecast of natural disasters - Floods, flash floods, landslide,

mudflow, heavy rains, droughts, snow avalanches, hail, strong winds; the assessment of damage. NEA prepares and distributes the information to MoE, Parliament of Georgia and other governmental bodies, regarding: existing and expected hydro meteorological and geodynamic processes, assessed engineer-geo-ecological conditions of geological environment and environment conditions on the territory of Georgia, in river basins, water reservoirs, in territorial waters of the Black Sea, on the continental shelf, and in the special economical zone. In case of forecasted hazardous hydro meteorological, geodynamic processes and extremely high level of environment pollution prepare and distribute relevant warnings, recommendations for preventive measures for the response to the national and local authorities, concerned ministries and bodies, mass media.

### **Context & Constraints:**

Law on Protection of Population and Territories from Natural and technological Emergency Situations (08.06.2007) creates the main legal basis for DRR system of Georgia. At the moment there are three levels dealing with disaster related issues: National, Regional and Local.

The activities on natural disaster monitoring in NEA is implementing in following structural units: Department of Hydrometeorology; Department of Environment Pollution Monitoring; Department of Geological Hazards and Geological Environment Management; Department of Shoreline Protection.

To build resilience to hazard and assess the disaster risks at the national level in the department of Geological Hazards and Geological Environment Management geo-monitoring is carrying out the studies and assessment of man-made influence to the geological hazard and environment; planning of preventive and palliative measures. The annual books on "Outcomes of Geological Disaster in Present Year and their Development Forecast for Next Year in Georgia" is issuing and disseminating to the regional and national governmental bodies. The assessment and identification of negative outcomes, risk assessment, preparation of recommendations for population living in the emergency conditions and preparation of relevant conclusions for immediate measures, in case of geological processes extreme activation in the settlements is main activity of geological department as well zoning of the territory of Georgia in accordance with frequency and intensity of hazardous geological processes.

The department of hydrometeorology of NEA through the recording, assessment and research hydrometeorological and environment condition observation stations data prepares and disseminates of warnings on expected hazards and disasters of hydro meteorological origin; identifies of hazardous and disastrous processes; spreading area, damage assessment caused by them and planning of relevant liquidation measurements; Zoning of the territory of Georgia on the frequency and intensity of hydro meteorological processes, including diverse hydro meteorological processes.

Department of the Coastline Protection of NEA identifies redundant accumulation, erosion districts in the coastline and shoreline zones, provides of relevant authorities with the information, recommendations and engineer decisions; compiles of the project documentations connected with engineer protection-rehabilitation of the coastline and arrangement.

### **Priority for action 1: Core indicator 2**

*Dedicated and adequate resources are available to implement disaster risk reduction plans and activities at all administrative levels*

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

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

### **Means of verification:**

- \* Is there a specific allocation of budget for DRR in the national budget?
- \* 0 % allocated from national budget
- \* 0 USD allocated from overseas development assistance fund
- \* 0 USD allocated to hazard proofing sectoral development investments (e.g transport, agriculture, infrastructure)
- \* 0 USD allocated to stand alone DRR investments (e.g. DRR institutions, risk assessments, early warning systems)
- \* 0 USD allocated to disaster proofing post disaster reconstruction

### **Description:**

Resources are allocated in central and Autonomous republics' budgets and at State Trustee Governors' administration for funding Emergency Respond Forces.

The central budget, as well as budgets of Autonomous Republics, has the Reserve Fund from which the dedicated resources for elimination disaster consequences are allocated

Under the rules defined by Georgian legislation, NEA all its activities, makes the balance-sheet and submits them to the Ministry for approval. NEA financing sources are the state budget, funds for special purpose of state budget, revenues received from the carried out works under the contract and other sources allowed by the Georgian legislation. The Ministry of Environment Protection and Natural Resources of Georgia carries out supervision and state control over legality, expediency, efficiency and financial & economic activities of NEA.

For the disaster risk reduction the state budget is financing regular hydrometeorological observation (24 hours), monitoring of geological hazards (twice per year) over the territory of Georgia; in case of activation of hazardous events preparing and dissemination of warnings; emergency situation work out recommendations and necessary palliative measures for damage reduction. From the funds for special purpose of state budget are financing shoreline protection measures of the disaster prone rivers of Georgia and the rehabilitation of Black Sea coast.

In the state budget and in the administrative regions budgets are allocated amount of money for assessment, recovery and response.

### **Context & Constraints:**

In Georgia are challenges in delineating lines of responsibility and especially in promoting cooperation between the institutions of observation, study, risk assessment, emergency services and local governmental bodies, the lack of legal and financial resources for disaster reduction complicates this cooperation. It is necessary to include in special purpose of state program monitoring and research of all type disasters.

Because of scale of Floods, flash floods, landslide, mudflow, heavy rains, droughts, snow avalanches, hail, strong winds in Georgia and their increased intensity caused by the global climate change or anthropogenic influence on the environment for the implementation of DRR-concepts and Disaster Mitigation and Disaster Preparedness programs is necessary create independent DRR fund in frame of technical cooperation.

Strategic planning of environmental issues to provide coordinated actions and preventive measures to implement and strengthen the cooperation with disaster-prone communities, cooperation on the local level and environment protection, societal and economic research with actors would be a major

achievement.

### **Priority for action 1: Core indicator 3**

*Community Participation and decentralisation is ensured through the delegation of authority and resources to local levels*

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

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

#### **Means of verification:**

\* Do local governments have legal responsibility and budget allocations for DRR? Yes

\* Yes: Legislation

\* Yes: Budget allocations for DRR to local government

#### **Description:**

The Law on Local Self Government states the authority of local self-governing units to ensure municipal fire fighting and rescue activities as the own authority of local self-government.

Resources are allocated in local governments budgets; for funding local governments Divisions of Emergency Management.

The local governments budgets have the Reserve Fund from which the dedicated resources for elimination disaster consequences are allocated.

Law on Protection of Population and Territories from Natural and Technological Emergency Situations defines the obligations of local authorities related to disaster management and emergency situations.

Under the law respective bodies (local, regional, central) should ensure public awareness and involvement in the process.

The Government decree on Emergency Respond Forces regulates the responsibilities and obligations of Local Emergency Respond Divisions. The decree also provides legal social guarantees for employees of Local Emergency Respond Divisions. Decree obligates the respective local bodies to identify the risk spots and to create adequate Emergency Situations Respond plans depending to the available resources.

In 2006-2009 for implementation of cooperation between disaster prone community and NEA through Georgian government, World Bank supporting and CIDA financial support was realized the pilot project in Racha - disaster prone region in 2002, that caused serious damages to private and public property.

The main goal of project was design and equips the control points, identification of voluntaries to incorporate them in monitoring system. In case of Disaster the voluntaries will direct contact (by mobile Phone, pass in frame of project) to the operative services of NEA and participate hazard risk assessment.

In case of activation of Geological Hazardous events information between the local municipal bodies and NEA is sharing by telephone, fax and letter, in need geologist carry out field study and draft the recommendations.

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

To build capacities in the human resource and material sectors, and to promote drafting local plans for disaster management.

Recognize the role and contribution of voluntary action to capacity building at local level and provide the appropriate environment.

The development of cooperation with disaster-prone communities, cooperation on the local level, awareness rising about advisability of their inclusion as the actor in the early warning system would be a major achievement for DRR measurements.

Cooperation between environmental nongovernmental, governmental and international organizations to exchange the practices, innovations in accordance of coordinative actions is much need.

### **Priority for action 1: Core indicator 4**

*A national multi sectoral platform for disaster risk reduction is functioning.*

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

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

#### **Means of verification:**

\* Are civil society organisations , national planning institutions, key economic and development sector organisations represented in the national platform? -- not complete --

\* 0 civil society members (specify absolute number)

\* 0 sectoral organisations (specify absolute number)

\* 0 women's organisations participating in national platform (specify absolute number)

#### **Description:**

On 10 September 2010, by the decree of the President of Georgia Temporary Inter-Agency Commission for Coordinating the Establishment of the United System of Crisis Management under the National Security Council of Georgia; was established.

The Crisis management Commission is the high-level inter-agency body under chairmanship of the Secretary of the National Security Council of Georgia. The Commission is tasked to elaborate recommendations and proposals in order to enhance and to create unified system for crisis management.

In implementing its tasks, the focus area of the Commission includes not only response activities to the crisis, but also prevention and reduction components. Focus area of the Commission also includes not only effective coordination among state agencies but also with scientific centers, experts, international and non-governmental organizations.

The Commission has been carrying out its activities since September 2010. The working group comprising virtually all state agencies has been set up under the Commission umbrella. In addition, the Commission, pursuant to Article 3 of its own Regulations, is entitled to invite experts in the process of elaboration of relevant recommendations.

Despite of this NEA according its main activities (monitoring and forecasting hydrometeorological and geological origin natural disasters, shoreline protection) could be key development player around the national disaster risk reduction agenda and servises for adopting disaster risk reduciton measures.

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

Disaster risk reduction (DRR) is a cross-cutting and complex development issue that requires political

and legal commitment, public understanding, scientific knowledge, careful development planning, responsible enforcement of policies and legislation, early warning systems, and effective disaster preparedness and response mechanisms. A multi-stakeholder National Platform for DRR can help provide and mobilize knowledge, skills and resources required for mainstreaming DRR into development policies, planning and programs.

The financing regular monitoring, assessment and dissemination to different level of natural hazardous events is provided by the state budget, but still is existing big problem to implement effective early warning system.

A national multisectoral platform would be function as a competence centre for all questions of national and international disaster reduction, prevention and management and spread the knowledge of disaster reduction across all levels of the education sector. It also would be act as a mediator for international organizations and institutions in the area of disaster reduction and aims to enhance interdisciplinary and transnational cooperation.

## Priority for action 2

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

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### Priority for action 2: Core indicator 1

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

#### Level of Progress achieved:

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

#### Means of verification:

\* Is there a national multi-hazard risk assessment available to inform planning and development decisions? Yes

\* Yes: Multi-hazard risk assessment

\* 0 % of schools and hospitals assessed

\* 0 schools not safe from disasters (specify absolute number)

\* No: Gender disaggregated vulnerability and capacity assessments

\* Yes: Agreed national standards for multi hazard risk assessments

#### Description:

On 2 September 2010, by the No707 Decree, President of Georgia officially adopted Georgia's Threat Assessment Document for 2010-2013. The National threat register is the fundamental conceptual document, which identifies threats to Georgia's national security, presents possible scenarios of their realization and provides analysis of their probability and impact. The document has been elaborated by the interagency working groups under the coordination of the Office of National Security Council of Georgia.

Georgia's Threat Assessment Document for 2010-2013 is based on the broad understanding of security and besides the military and political threats the document evaluates socio-economic and terrorist threats, as well as natural and man-made disasters. Therefore, the document consists of 5 parts: Military Threats, Foreign Political Threats, Transnational Threats, Socio-Economic Threats and Natural and Industrial Threats and Risks.

Based on competences under the legal framework the NEA carries out: monitoring of hydro meteorological and geodynamic processes, engineer-geo-ecological conditions of geological environment and environment conditions on the territory of Georgia, in river basins, water reservoirs, in territorial waters of the Black Sea, on the continental shelf and anthropogenic influence on the environment;

Observing hydro and morpho-dynamic processes in coastline zones, implement permanent mapping activities, define risk-zones and forecast coastline developments, manage coast forming processes with engineer activities; data collection through the meteorological, hydrological, marine, snow- avalanche and other stations; data processing based on historical data; assessment of hazard risk on the community and engineer-industry infrastructure; adoption of palliative and preventive measures.

In the NEA is prepared special zoning maps of the territory of Georgia in accordance with frequency and reiteration of diverse hydro meteorological and hazardous geological processes:

1. Populated area and Urban Territories of Georgia, located in the Geological Hazardous Risk Region;
2. Landslide risk zones in Georgia and damage area;
3. Mudslide risk zones in Georgia and damaged area;
4. Areas at Risk of Flooding in Georgia;
5. Drought Prone Regions in Georgia;
6. Areas with High Wind Speeds in Georgia;
7. Risk of avalanches in Georgia;
8. Areas with intensive hail in Georgia;
9. Engineering Defense Master Plan of black sea coastline (2004); and etc.

Georgian legislation envisages local self governing unites task to collect and process the information concerning protecting people and territories from disasters

With the support of UNDP and SDC are several ongoing projects: Seismic Risk of Tbilisi City, Multi-risk assessment of Telavi Community, Rioni river flood prediction;

In Georgia is functioning Georgian-European Centre Geodynamical Hazards of High Dams of the Council of Europe. The Centre prepared the web-page Risks of Large Dams; for the web-site Be Safe Net; of Council of Europe, two Early Warning Systems, regional Atlas of natural hazards of South Caucasus, several meetings on DRR.

In the frame of NATO SfP program Assessment of Seismic Hazard of Caucasus-Northern Turkey Energy Corridor; is developed by Institute of Geophysics.

Government of Georgia in 2009 asserted the new seismic hazard map and new building code of the country prepared by Institute of Geophysics, Seismic Monitoring Centre and Institute of Structural Mechanics

### **Context & Constraints:**

National disaster identification, determination its features and risk assessment at some level is carried out through the regular hydrometeorological observation and geological field monitoring. To implement the hydrometeorological and geological study programs for effective disaster risk reduction measures it is necessary increase hydrometeorological net, introduction of advanced technical means and research methods.

For the disaster risk reduction it is necessary to have the legal framework, which will be define the competencies between governmental/ nongovernmental, regional, local bodies and communities to ensure effective cooperation for preventive measures. This legislation will prevent duplication of responsibilities.

The local scientific potential is not used properly. The funding of DRR is scarce and nonsystematic. Monitoring systems (seismic, hydrological etc) including space monitoring are still under development. No systematic investigation on the safety of schools and hospitals has been done.

### **Priority for action 2: Core indicator 2**

*Systems are in place to monitor, archive and disseminate data on key hazards and vulnerabilities*

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

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

### **Means of verification:**

\* Are disaster losses systematically reported, monitored and analysed? Yes

\* Yes: Disaster loss database

\* Yes: Reports generated and used in planning

**Description:**

National Environmental Agency (NEA), is dealing with all natural hazards (except the earthquake), determines location and extension of the disasters as well as the caused losses and damages (losses of people and economy damages) through the cooperation with governmental bodies &#8211; ministry of Agriculture; ministry of economy and sustainable development, ministry of regional development and infrastructure but there is no database manageable and accessible via local IT network of NEA. The data transfer is still manually made although it is made in digital form or on paper.

M. Nodia Institute of Geophysics together with Ministry of Environment Protection and Natural Resources compiled the natural disaster database for 12 disasters which needs farther replenishment and GIS-based hazard maps of Georgia for 12 kinds of disasters and preliminary maps of risks for seismic hazard.

Georgian legislation envisages local self governing unites obligation to provide disasters statistics.

**Context & Constraints:**

The data base of diverse hydro meteorological and hazardous geological processes, extension of the disasters as well as the caused losses and damages is incomplete, because no coordinated cooperation between corresponding organizations and communities.

Creation of integrated database within the NEA as the first presumption for the Integrated Early Warning of Natural Disasters in Georgia is recommended.

**Priority for action 2: Core indicator 3**

*Early warning systems are in place for all major hazards, with outreach to communities.*

**Level of Progress achieved:**

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

**Means of verification:**

\* Do risk prone communities receive timely and understandable warnings of impending hazard events?

Yes

\* No: Early warnings acted on effectively

\* No: Local level preparedness

\* Yes: Communication systems and protocols

\* Yes: Active involvement of media in early warning dissemination

**Description:**

NEA based on the regulation through the regular monitoring of hydro meteorological and geodynamic processes, engineer-geo-ecological conditions of geological environment and environment conditions on the territory of Georgia, in river basins, water reservoirs carries out preparation of bulletins, notes, reviews and other materials, concerning actual and forecasted environmental condition and warnings about hazardous hydro meteorological, geodynamic processes and extremely high environment pollution. The information is disseminating to state and regional governmental bodies &#8211; Ministry of environment protection and natural resources; Emergency Management Department of the Ministry of Internal Affairs, military forces of Georgia, media and other interested end-users. NEA monitors geodynamic processes on the rivers, coastal zone of Georgia, forecasts negative hazardous geodynamic processes, erosion of shoreline, elaborates of recommendations for preventive measures and implements consultative, and project works for engineering defense to mitigate and avoid the negative impacts.

The Georgian-European Centre &#8220;Geodynamical Hazards of High Dams&#8221; of Council of Europe developed the real-time telemetric Early Warning System for Dam diagnostics, which is tested now at Enguri Dam International Test Area as well as telemetric acoustic EWS for debris flow alert.

### **Context & Constraints:**

However the NEA accordance with the rule determines disaster risks and disseminates the warnings, but there is not implemented effective system of early warning, as it is necessary harmonic functioning four tools &#8211; risk assessment; observation and warning services; dissemination and communication/response planning.

In Georgia because of no coordinated measures of corresponding competencies there are challenges in delineating lines of responsibility and especially in promoting cooperation and communication/response planning, particular incorporation of community. It is necessary to improve early warning methods and spreading of forecast in the high mountain region of Georgia situated in high dangerous zone; to implement culture of voluntaries as a good practices of developed countries in the sphere of disaster risk management. To build public awareness it is necessary create the study programs on disaster risk management.

### **Priority for action 2: Core indicator 4**

*National and local risk assessments take account of regional / trans boundary risks, with a view to regional cooperation on risk reduction.*

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

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

### **Means of verification:**

- \* Does your country participate in regional or sub-regional DRR programmes or projects? Yes
- \* Yes: Programmes and projects addressing trans-boundary issues
- \* No: Regional and sub-regional strategies and frameworks
- \* Yes: Regional or sub-regional monitoring and reporting mechanisms
- \* No: Action plans addressing trans-boundary issues

**Description:**

Under the auspices of Central Asia economic co-operation and development program and by the supporting World Bank, UN international strategy for disaster risk reduction and WMO according the Hyogo Framework for Action 2005-2015 is carrying out the disaster risk assessment initiatives in the Central Asian and Caucasus Region. The experts of NEA prepared the analytic report about disaster (flood/flashflood, landslide, mudflow, erosion, snow avalanche and drought) risk assessment and estimation, caused damages to the population and economy sectors.

NEA is involved in the Black Sea and Middle East regions component of the Flash Flood Guidance System Project, its purpose to bring meteorological and hydrological communities to work closer in improving flash flood forecasts and response. In frame of this project will exchange the regular data to provide the regional forecasting model and early warning system.

The Georgian-European Centre "Geodynamical Hazards of High Dams" of Council of Europe together with scientists from Armenia and Azerbaijan issued the "Atlas of GIS-based maps of natural hazards of South Caucasus".

**Context & Constraints:**

Georgia joined the convention of WMO in 1994, despite of the resolution 40th which regulates data exchange between member countries there exists problems transboundary data accessibility. It is not carrying out transboundary monitoring and study of geological hazardous events, such as earthquake, erosion, flood, mudflow, landslide and etc.

It is necessary create good coordinated regional response planning and defense system.

## Priority for action 3

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

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### Priority for action 3: Core indicator 1

*Relevant information on disasters is available and accessible at all levels, to all stakeholders (through networks, development of information sharing systems etc)*

#### Level of Progress achieved:

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

#### Means of verification:

\* Is there a national disaster information system publicly available? Yes

\* No: Web page of national disaster information system

\* Yes: Established mechanisms for accessing DRR information

#### Description:

The Hydrometeorological Department of NEA provides hydrometeorological services, short and long-term recording, monitoring, and evaluation of meteorological processes in time and space, the recording of interactions between the atmosphere and other environmental spheres, the forecasting of meteorological processes, the operation of the necessary measuring and observation systems and the provision, storage, and documentation of meteorological data and products. The departments of Geological Hazards and Geological Environment Management geo-monitoring of NEA is carrying out in, the studies and assessment/estimation of man-made influence to the geological hazard and environment; of population and engineering objects. It issues and disseminates to the regional and national governmental bodies (Ministry of environment protection and natural resources; Emergency Management Department of the Ministry of Internal Affairs, military forces of Georgia, media and other interested end-users) the annual books on "Outcomes of Geological Disaster in Present Year and their Development Forecast for Next Year in Georgia. All these information circulate through the media and homepage [www.nea.gov.ge](http://www.nea.gov.ge).

In frame of international cooperation NEA is circulating relevant information about disasters through an international exchange of experiences through publications, conferences and workshops.

#### Context & Constraints:

To implement dangerous and disaster risks information availability mechanisms at all level is important in Georgia, as its complicated relief promote various scale natural disaster. The relevant information should include actors and institutions in disaster reduction, prevention, management and potential.

For the public awareness would be useful study programs extension of scientific experts with information and data on natural disasters, preventive measures, publications about all kinds of disasters by media and website.

Additionally, there is not established a centralized database for all disasters. To simplify communication and exchange of information between all DRR organizations the implementation of "Round Table"; would be very helpful. Compose the school education programs on disaster risk management, preparedness and response planning in case of disaster will be useful to raise

schoolchildren knowledge in disaster prone regions.

### **Priority for action 3: Core indicator 2**

*School curricula , education material and relevant trainings include disaster risk reduction and recovery concepts and practices.*

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

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

#### **Means of verification:**

- \* Is DRR included in the national educational curriculum? Yes
- \* Yes: Primary school curriculum
- \* Yes: Secondary school curriculum
- \* No: University curriculum
- \* No: Professional DRR education programmes

#### **Description:**

Disaster Risk Reduction in Education Policies and National Curriculum: Components of disaster risk reduction are taught at all the three levels of education process (primary, basic and secondary) in a coordinated way, taking into account the age-related specific features and capabilities of a student.

Within the framework of Natural Science curriculum pupils are taught to identify safe and hazardous environments and rules of behavior in case of emergencies.

Within the framework of Social Science curriculum subject Geography assists students in acknowledging the linkage between the necessity to protect the environment and its significance for sustainable development of the society. The main emphasis is laid on the knowledge students should possess about natural and manmade hazards, their causes and effects, and developing the right attitude towards the environment. In addition, within the framework of an elective course "Geographic Research", students are able to conduct a research on disasters common to their surrounding environments.

"Civil Defense and Safety" is a newly introduced subject and is taught in the 4th, 8th, and 12th grades for one semester. For the 4th grade, the main direction is to learn how to behave in an unknown environment; in the 8th grade to prepare for and respond to disasters, and in the 12th grade pupils learn about the evacuation rules in case of an emergency and provision of first aid.

Within the framework of "Supporting Disaster Risk Reduction amongst Vulnerable Communities and Institutions in Southern Caucasus"; Project implemented jointly by the Ministry of Education and Science of Georgia (MES), the Emergency Management Department (EMD) of the Ministry of Internal Affairs and UNICEF, a specially established Technical Expert Group has initiated a review of National Curriculum with an aim to integrate disaster risk reduction into the "Head of Class Programme" for grades V - IX. The programme is currently being developed by the National Curriculum and Assessment Centre of the MES whereby total of 12 hours of DRR will be introduced per grade (V-IX) in schools countrywide from the next academic year. A special training

programme and methodological guide for teachers (heads of classes) are being developed introducing interactive methodologies of teaching DRR. The programme will enable teachers to apply inter-active methodologies in teaching disaster preparedness and risk reduction in schools. As part of this process school principals and administration will also receive training on DRR and importance of school disaster preparedness activities.

Simultaneously, the Technical Expert Group lead by the national expert on DRR in education is developing an action plan on incorporating DRR under different subject areas for the next curricula revision and other educational policies. This action plan will be finalized in February 2011 and further promoted within the MES.

The future plans are to incorporate DRR component into the educational process more intensively.

The staff scientists of NEA are associated professors in institutes of Georgia and are adopting disaster-related curricula into existing study programs, especially are reviewing international practice in disaster risk management, early warning systems and their importance.

NEA is involved in the scientific research/studies implemented in Georgia &#8211; Global Climate Change, Risk Management of Natural (geological, hydrometeorological, hydrodynamical) and Anthropogenic Hazards, Integrated Coastal zone management.

M. Nodia Institute of Geophysics together with Ministry of Environment Protection compiled the natural disaster database for 12 disasters (earthquakes, landslides, debris flows, avalanches, floods, several hydrometeorological disasters), which needs farther replenishment and GIS-based hazard maps of Georgia for 12 kinds of disasters and preliminary maps of risks for seismic hazard.

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

To build a culture of safety and resilience at all levels is important to initiate relevant disaster protection/management study programs and its integration enough in the studies of spatial and land use planning, architecture, engineering, chemistry, economics and many others.

Development in reforming school curricula in accordance disaster risk management and protection is very important for disaster prone community defense.

#### **Priority for action 3: Core indicator 3**

*Research methods and tools for multi-risk assessments and cost benefit analysis are developed and strengthened.*

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

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

#### **Means of verification:**

\* Is DRR included in the national scientific applied-research agenda/budget? Yes

\* Yes: Research outputs, products or studies

\* Yes: Research programmes and projects

\* No: Studies on the economic costs and benefits of DRR

**Description:**

NEA carries out the relevant warnings of hydro meteorological and geological origin hazardous events, hydrodynamic and morpho-dynamic dangerous processes of shoreline and extremely high level of environment pollution. Based on the investigation of long time observation data in NEA is adopting relevant recommendations for palliative and preventive measures.

Based on the practical studies in NEA is prepared special maps on diverse/hazardous hydro meteorological, geological processes and erosion in territory of Georgia, which are accessible on the web-page ([www.nea.gov.ge](http://www.nea.gov.ge)): Populated area and Urban Territories of Georgia, located in the Geological Hazardous Risk Region;

10. Landslide risk zones in Georgia and damage area;
11. Mudslide risk zones in Georgia and damaged area;
12. Areas at Risk of Flooding in Georgia;
13. Drought Prone Regions in Georgia;
14. Areas with High Wind Speeds in Georgia;
15. Risk of avalanches in Georgia;
16. Areas with intensive hail in Georgia;
17. Engineering Defense Master Plan of black sea coastline (2004); and etc.

NEA is involved in the different scientific research projects aiming disaster risk assessment and mitigation of damages, financed by the National Scientific and International fund.

**Context & Constraints:**

The practical studies of disaster risk assessment are carrying out in NEA, but there is a lack processing mechanisms of historical data (geo-morphological, shoreline hydro-morpho-dynamic, hydrometeorological) and their introduction in relevant software.

**Priority for action 3: Core indicator 4**

*Countrywide public awareness strategy exists to stimulate a culture of disaster resilience, with outreach to urban and rural communities.*

**Level of Progress achieved:**

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

**Means of verification:**

- \* Do public education campaigns on DRR reach risk-prone communities? No
- \* No: Public education campaigns.
- \* No: Training of local government
- \* No: Availability of information on DRR practices at the community level

**Description:**

Many parts of this question have been addressed in the last three Core Indicators. However the NEA has the official mandate to observe, forecast and inform the governmental bodies and public, but in Georgia does not exist the coordinated system to build awareness for disaster reduction through campaigns, educational programs, events, informational brochures and much more.

**Context & Constraints:**

The development TV studio, public and even for educational campaigns, conferences or school visits for dissemination the mandated activities of NEA would be progressive steps for creating the disaster risk reduction flexible system of Georgia and public awareness building.

## Priority for action 4

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

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### Priority for action 4: Core indicator 1

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

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

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

#### **Means of verification:**

\* Is there a mechanism in place to protect and restore regulatory ecosystem services? (associated with wet lands, mangroves, forests etc) Yes

\* Yes: Protected areas legislation

\* No: Payment for ecosystem services (PES)

\* No: Integrated planning (for example coastal zone management)

\* Yes: Environmental impacts assessments (EIAs)

\* Yes: Climate change adaptation projects and programmes

#### **Description:**

DRR takes an integrated approach to all environmental policies and plans. NEA currently coordinates activities to investigate legislative needs for Disaster Mapping, or the risk knowledge assessment study - identifying natural hazards' sensitive areas, communities vulnerable to the hazards, type and character of the risks. First version of the Disaster Mapping study is expected to be available by early next year. In Hydrometeorological and Geological hazardous events and shoreline monitoring are included in all preventive measures to decrease hazards in some prone regions of the country.

Activities in Georgia on disaster management are guided by the following legislation and regulatory acts. The 1997 Law on the State of Emergency represents a framework law for regulation of the aftermath of natural disasters. 2007 Law on Protecting the Population and Territory from Natural and Technological Emergency Situations,; 1997 presidential Decree No. 66 on Counter-measures of Development of Disastrous Natural Geological Processes and Protection of Underground Hydrosphere and Lands; 1998 Decree No. 779 on Promotion of Implementation of UN Programme on Management of Emergency Situations. The shoreline protection activities are regulated by the Law of Georgia "about Engineering Protection and Regulation and Adjustment of Sea, Reservoirs and Rivers Shoreline"; - #576 27.10.2000.

Georgia joined the Convention of the World Meteorological Organization (WMO) in 1994 and the United Nations Framework Convention on Climate Change (UNFCCC).

Presently in the Ministry of Environment Protection and Natural Resources is worked out the second National Environmental Action Plan (NEAP-2), where the management problem of natural and anthropogenic disaster represents priority direction.

**Context & Constraints:**

The Government of Georgia undertakes efforts to improve the country's legal framework in disaster preparedness, a number of legal acts and regulations have been developed in the last few years, but the most part of them covers the issues of disaster response with little if any attention given to disaster risk reduction.

In spite of overall challenge for the national level is to reduce rural exodus and/or address the consequences of rural land-use abandonment (also known as changing land-use patterns). It is necessary to adopt the legislation to proscribe the legalization of (not arable) lands without geological hazardous risk assessment, also land legalization of refugees from disaster prone communities. Even the adaptation on climate change must be further utilized to address the difficulties in environmental policy.

There is a need for frameworks in sustainable resource and environment management because there is a lack of consistent integration of environmental politics and planning, aside from the successes on the project level. Currently the integration is more situational than systematic.

**Priority for action 4: Core indicator 2**

*Social development policies and plans are being implemented to reduce the vulnerability of populations most at risk.*

**Level of Progress achieved:**

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

**Means of verification:**

- \* Do social safety nets exist to increase the resilience of risk prone households and communities? No
- \* No: Crop and property insurance
- \* No: Employment guarantee schemes
- \* No: Conditional cash transfers
- \* No: DRR aligned poverty reduction, welfare policy and programmes
- \* No: Microfinance
- \* No: Micro insurance

**Description:**

The Insurance system regarding the DRR is not developed yet, but some work has been already began.

**Context & Constraints:**

To increase the resilience of risk prone households and communities it is necessary with the monitoring and assessment of hydrometeorological, geological and shoreline dynamic origin hazards to develop the close cooperation between NEA and social safety programs/insurance companies. There is a need for sharing/implementation of EC practice and create relevant legislative frameworks.

**Priority for action 4: Core indicator 3**

*Economic and productive sectorial policies and plans have been implemented to reduce the vulnerability of economic activities*

**Level of Progress achieved:**

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

**Means of verification:**

- \* Are the costs and benefits of DRR incorporated into the planning of public investment? Yes
- \* No: National and sectoral public investment systems incorporating DRR.
- \* Yes: Investments in retrofitting infrastructures including schools and hospitals

**Description:**

In the large investment project DRR is included and special funds are incorporated.

**Context & Constraints:**

To reduce the vulnerability of economic activities it is necessary implement in the economic and productive sectorial policies and plans on disaster risk reduction and preparedness strategies at all levels and timeframes (e.g., long-term monitoring and measures) as well the legal frameworks. In cooperation in the areas of risk assessment and disaster reduction with the private sector, insurance companies, government authorities and research institutes will increase the sensibility and resilience of economic infrastructure following main points:- Supply Systems such as Water and Sewage, Food, Health and Emergency Services/Disaster Management - Energy Industry - Traffic and Transportation Systems - Communication and Information Systems - Public Authorities and Administration - Financial, Monetary and Insurance Systems - Dangerous and Hazardous Substances - Others such as the Media, Science and Culture.

**Priority for action 4: Core indicator 4**

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

**Level of Progress achieved:**

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

**Means of verification:**

- \* Is there investment to reduce the risk of vulnerable urban settlements? Yes
- \* Yes: Investment in drainage infrastructure in flood prone areas
- \* Yes: Slope stabilisation in landslide prone areas
- \* No: Training of masons on safe construction technology
- \* No: Provision of safe land for low income households and communities

**Description:**

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

One of the main points in reducing vulnerability of economic activities is the planning and construction of human settlements and establishment of building codes, which scopes include the requirements for earthquake, strong wind, landslide, mudflow, shoreline erosion and flood resistance, especially in disaster prone areas. The regulated activities of NEA includes Implementation of conducting engineer-geological, geotechnical and hydro-geo-ecological studies at any stage of projecting, for all types of civil and industrial objects despite of the customer, as well implementation of all scales (including specialized) of engineer-geological, engineer-geodynamic and geo-ecological studies, for sustainable assimilation of the territory and reliable disposition of engineer objects and efficient management of geological environment.

### **Context & Constraints:**

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

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

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

### **Priority for action 4: Core indicator 5**

*Disaster risk reduction measures are integrated into post disaster recovery and rehabilitation processes*

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

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

### **Means of verification:**

- \* Do post-disaster recovery programmes explicitly incorporate and budget for DRR? Yes
- \* 0 % of recovery and reconstruction funds assigned to DRR
- \* No: Measures taken to address gender based issues in recovery

### **Description:**

For the recovery and reconstruction of road and coastal zones are allocated in the budget of local communities and municipalities. Also Emergency Management Department and their regional administrative units have their budget to provide response in the effected areas by disasters of the country. NEA has also some funds in the budget for recovery assessment and recovery of coastal zones

**Context & Constraints:**

In the disaster damage mitigation, recovery and rehabilitation it is essential to consider disaster risk reduction principles in order to ‘build back better’; and not recreate risk. In spite that the NEA carries out the regular monitoring, geotechnic and hydro-geo-ecological studies at any stage of projecting, for all types of civil and industrial objects, accordingly prepares the recommendations for necessary measures there is an identified need to work out the mechanisms for provision of recommended measures in time and implementation of international post disaster recovery and reconstruction norms and standards at national and local level.

The challenges concerning this point are certainly broad there are not laws for disaster safety for private and state properties. The challenges for the communities and the state itself therefore lie in the realm of raising awareness and sensitising the population to risk.

**Priority for action 4: Core indicator 6**

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

**Level of Progress achieved:**

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

**Means of verification:**

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

\* 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 hydrogeological 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.

## Priority for action 5

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

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### Priority for action 5: Core indicator 1

*Strong policy, technical and institutional capacities and mechanisms for disaster risk management, with a disaster risk reduction perspective are in place.*

#### Level of Progress achieved:

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

#### Means of verification:

\* Are there national programmes or policies to make schools and health facilities safe in emergencies?  
Yes

\* Yes: Policies and programmes for school and hospital safety

\* Yes: Training and mock drills in school and hospitals for emergency preparedness

#### Description:

The role of the Integrated System of Emergency Situations Management and responsibilities of the Ministry of Labor, Health and Social Affairs (MoLHSA) have been defined by the Decree #415 of the President of Georgia on Approval of the National Response Plan to Environmental and Technological Emergency Situations; dated 26.Aug.2008. Within this National Response Plan MoLHSA is responsible for carrying out Function 6; Medical Care.

Department of Emergency Situations Coordination and Regime of Ministry of Labor, Health and Social Affairs are responsible for management of healthcare emergencies. Department of Emergency Situations and Regime of MoLHSA have developed the Plan of Sectoral Response and Civil Defense Measures of the Ministry of Labor, Health and Social Affairs of Georgia in Emergencies; which was adopted in 23 March, 2009.

Department of Emergency Situations Coordination and Regime of MoLHSA developed Recommendations for Designing the Plans of Preparedness of Hospitals on Emergency Situations; which were distributed to all hospitals throughout Georgia. Besides, the managers of medical facilities were duly instructed regarding preparation of the local hospital response plans. As a result, more than 165 hospital response plans were submitted to the Ministry from medical facilities. The headquarters on emergency situations are created in almost all multi-branch hospitals. The response plans developed by hospitals currently are in the course of coordination with the National Response Plan. This is a permanent and renewable process implemented on a daily basis.

Within the framework of training programs organized by the Department of Emergency Situations Coordination and Regime of MoLHSA more than 500 medical doctors and 100 hospital managers were trained on management of clinical conditions in critical situations and hospital management in emergency situations as well as 50 rescuers have been trained during the last three years. Above mentioned trainings took place in Tbilisi and regions throughout the Georgia. Training programs include large scale simulations drills and tabletop exercises. Similar training courses are planned to continue in future.

In addition, during the influenza A (H1N1) pandemic period in Georgia MoLHSA together with National Center for disease Control and experts from Infectious Disease, AIDS and Clinical Immunology Research Center conducted expert's lectures, seminars and training courses. During these trainings more than 4500 medical doctors have been trained on the issues (etiology, pathogenesis, clinic, diagnostics, prevention and treatment) of A (H1N1) pandemic influenza.

**Context & Constraints:**

To increase of readiness for managing disaster impacts and improve response measures is need initiate relevant disaster protection/management study programs, public and even for educational campaigns, conferences or school visits. To Implement of best practices in this field would be progressive steps for increasing of readiness for managing disaster impacts, and improving response measures in Georgia.

**Priority for action 5: Core indicator 2**

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

**Level of Progress achieved:**

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

**Means of verification:**

- \* Are the contingency plans, procedures and resources in place to deal with a major disaster? Yes
- \* Yes: Contingency plans with gender sensitivities
- \* Yes: Operations and communications centre
- \* Yes: Search and rescue teams
- \* Yes: Stockpiles of relief supplies
- \* Yes: Shelters
- \* Yes: Secure medical facilities
- \* Yes: Dedicated provision for women in relief, shelter and emergency medical facilities

**Description:**

Emergency Management Department of the Ministry of Internal Affairs is responsible to carry out the disaster preparedness plans and contingency plans at all administrative levels.

By the Decree #415 of the President of Georgia has been defined "On Approval of the National Response Plan to Environmental and Technological Emergency Situations"; dated 26.Aug.2008. Regarding this document all Ministries have their functions and they are obliged to develop response plans in the emergency situations.

For example the MoLHSA maintains at all times sufficient supplies of medicines and consumables for provision medical facilities in case of emergency situations.

In Georgia, disaster emergency management plans are obligatory for all levels. There are 9 State Trustee "governor's administration and 69 self-governing unites (local level), where disaster response units are functioning.

In case of force-majeure &#8211; hydrological and geological hazardous events extreme reactivation, NEA with local communities and the regional units of emergency management department is active incorporated in the disaster risk assessment, preventive and other recovery measures projection and implementation activities.

**Context & Constraints:**

For Disaster preparedness and response planning for recovery and rehabilitation efforts is need to develop national and regional Risk Atlas in GIS tools , where will be visualized disaster risk reduction actions their design and implementation measures and make it publically available on the programme website.

**Priority for action 5: Core indicator 3**

*Financial reserves and contingency mechanisms are in place to support effective response and recovery when required.*

**Level of Progress achieved:**

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

**Means of verification:**

- \* Are financial arrangements in place to deal with major disaster? Yes
- \* Yes: National contingency funds
- \* No: Catastrophe insurance facilities
- \* No: Catastrophe bonds

**Description:**

NEA carries out the hydrometeorological, geological, environment pollution and shoreline protection monitoring through the state budget financing sources and funds for special purpose of state budget, which mainly are directed to support effective response and recovery when required.

NEA through the funds for special purpose of state budget implements shoreline protection measures of the disaster prone rivers of Georgia and the rehabilitation measures of Black Sea coast. In the state medium range priorities (2011-2013 years) budgetary funds are include the finances for disaster risk reduction - monitoring and preventive measures.

**Context & Constraints:**

Because of scale of Floods, flash floods, landslide, mudflow, heavy rains, droughts, snow avalanches, hail, strong winds in Georgia and their increased intensity caused by the global climate change or anthropogenic influence on the environment for the implementation of DRR-concepts and programs for Disaster Mitigation and Disaster Preparedness is necessary create independent DRR fund in frame of technical cooperation. It will be support an implementation of insurance systems best practices concerning catastrophic insurance in Georgia.

**Priority for action 5: Core indicator 4**

*Procedures are in place to exchange relevant information during hazard events and disasters, and to*

## *undertake post-event reviews*

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

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

### **Means of verification:**

\* Has an agreed method and procedure been adopted to assess damage, loss and needs when disasters occur? Yes

\* Yes: Damage and loss assessment methodologies and capacities available

\* No: Post disaster need assessment methodologies

\* No: Post disaster needs assessment methodologies include guidance on gender aspects

\* No: Identified and trained human resources

### **Description:**

NEA and scientific Institutions on the territory of Georgia implements the observations, data collection, relevant studies and assessment of natural and man-made influence to the geological, hydrometeorological hazard and shoreline hydrodynamic processes; estimation of settlement and industrial facilities dangerous risk , planning of preventive and palliative measures carrying out the damage and loss assessment and recording.

### **Context & Constraints:**

In spite of NEA with other relevant services is carrying out the assessment/recording of damage and loss the statistic data are incomplete. It is need to adopt in Georgia advanced methodologies and procedure to assess damage and loss, as well advanced study/training of staff of NEA.

## Drivers of Progress

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

#### Levels of Reliance:

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

#### Do studies/ reports/ atlases on multi-hazard analyses exist in the country/ for the sub region?:

Yes

#### If yes, are these being applied to development planning/ informing policy?:

Yes

#### Description (Please provide evidence of where, how and who):

On 2 September 2010, by the No707 Decree, President of Georgia officially adopted Georgia's Threat Assessment Document for 2010-2013. The National threat register is the fundamental conceptual document, which identifies threats to Georgia's national security, presents possible scenarios of their realization and provides analysis of their probability and impact. The document has been elaborated by the interagency working groups under the coordination of the Office of National Security Council of Georgia.

Georgia's Threat Assessment Document for 2010-2013 is based on the broad understanding of security and besides the military and political threats the document evaluates socio-economic and terrorist threats, as well as natural and man-made disasters. Therefore, the document consists of 5 parts: Military Threats, Foreign Political Threats, Transnational Threats, Socio-Economic Threats and Natural and Industrial Threats and Risks.

Based on competences under the legal framework the NEA carries out: monitoring of hydro meteorological and geodynamic processes, engineer-geo-ecological conditions of geological environment and environment conditions on the territory of Georgia, in river basins, water reservoirs, in territorial waters of the Black Sea, on the continental shelf and anthropogenic influence on the environment;

Observing hydro and morpho-dynamic processes in coastline zones, implement permanent mapping activities, define risk-zones and forecast coastline developments, manage coast forming processes with engineer activities; data collection through the meteorological, hydrological, marine, snow- avalanche and other stations; data processing based on historical data; assessment of hazard risk on the community and engineer-industry infrastructure; adoption of palliative and preventive measures.

### b) Gender perspectives on risk reduction and recovery adopted and institutionalized

#### Levels of Reliance:

No/ little reliance: no acknowledgement of the issue in policy or practice; or, there is some acknowledgement but nothing/ little done to address it

#### Description (Please provide evidence of where, how and who):

Gender issue will become priority in DRR issue ,especially in vulnerable regions in the country.

### c) Capacities for risk reduction and recovery identified and strengthened

#### Levels of Reliance:

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

**Description (Please provide evidence of where, how and who):**

DRR takes an integrated approach to all environmental policies and plans. NEA currently coordinates activities to investigate legislative needs for Disaster Mapping, or the risk knowledge assessment study - identifying natural hazards' sensitive areas, communities vulnerable to the hazards, type and character of the risks. First version of the Disaster Mapping study is expected to be available by early next year. In Hydrometeorological and Geological hazardous events and shoreline monitoring are included in all preventive measures to decrease hazards in some prone regions of the country.

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

**Levels of Reliance:**

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

**Description (Please provide evidence of where, how and who):**

To increase the resilience of risk prone households and communities it is necessary with the monitoring and assessment of hydrometeorological, geological and shoreline dynamic origin hazards to develop the close cooperation between NEA and social safety programs/insurance companies. There is a need for sharing/implementation of EC practice and create relevant legislative frameworks.

In Georgia because of no coordinated measures of corresponding competencies there are challenges in delineating lines of responsibility and especially in promoting cooperation and communication/response planning, particular incorporation of community. It is necessary to improve early warning methods and spreading of forecast in the high mountain region of Georgia situated in high dangerous zone; to implement culture of voluntaries as a good practices of developed countries in the sphere of disaster risk management. To build public awareness it is necessary create the study programs on disaster risk management.

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

**Levels of Reliance:**

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

**Description (Please provide evidence of where, how and who):**

The activities on DRR implemented by NGO and Academical Institutions are supported by governmental institutions at all stages.

**f) Contextual Drivers of Progress**

**Levels of Reliance:**

Partial/ some reliance: Full acknowledgement of the issue; strategy/ framework for action developed to address it; application still not fully implemented across policy and practice; complete buy in not achieved from key stakeholders.

**Description (Please provide evidence of where, how and who):**

The Government of Georgia has signed the United Nations Development Assistance Program 2011-2015. The program includes implementation of the Governmental priorities in DRR.

National Development Priorities:

- To prevent or mitigate disaster risks.
- To effectively prepare for and respond to mitigate the damage and loss caused by emergency situations through unified management.
- To work towards the full implementation of the United Nations Hyogo Framework for Action 2005-2015.
- To implement sustainable measures to manage and prevent the substantial depletion of natural resources and environmental pollution.

Support National MDGs: MDG 1 &#8211; Eradicate extreme poverty, MDG 7 &#8211; Ensure environmental sustainability.

The actions will be taken by the Governmental institutions and by other stakeholders organizations.

# Future outlook

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## Area 1

*The more effective integration of disaster risk considerations into sustainable development policies, planning and programming at all levels, with a special emphasis on disaster prevention, mitigation, preparedness and vulnerability reduction.*

### **Overall Challenges:**

One important precondition to reduce disaster risk is to have detailed knowledge of hazards and vulnerabilities – physical, social, economic and environmental – that Georgia may face and how hazards and vulnerabilities change in the short- and long-term. This knowledge can be the basis upon which evidence-based action can be taken and policies formulated.

Activities will support the improvement of institutional capacities as well as capacities of individuals in relevant Government organisations.

### **Future Outlook Statement:**

Countries that develop policy, legislative and institutional frameworks for Disaster Risk Reduction and are able to develop and track progress through specific indicators have a greater capacity to both manage risks and to receive widespread consensus for, engagement in, and compliance with DRR measures across all sectors of society. Therefore, the first priority of a functioning, effective DRR system is the introduction of an inclusive national platform for DRR, accompanied by institutional, legislative and policy frameworks.

## Area 2

*The development and strengthening of institutions, mechanisms and capacities at all levels, in particular at the community level, that can systematically contribute to building resilience to hazards.*

### **Overall Challenges:**

Disasters themselves, and their effects, may be significantly reduced if people are well-informed and are exposed to a culture of disaster prevention and resilience – this necessarily requires the collection, compilation and dissemination of relevant knowledge on hazards, vulnerabilities, and developing capacities.

### **Future Outlook Statement:**

It will support mainstreaming DRR in the national education curriculum, targeting children, youth and vulnerable groups and communities especially. Active cooperation and networking among all stakeholders – scientific communities, the Government, practitioners, environmentalists, managers and planners – is key to establishing a culture of safety and resilience.

## Area 3

*The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities.*

### **Overall Challenges:**

The impact of disasters as well as losses associated with them can be substantially reduced if authorities, individuals and communities in hazard-prone areas are prepared and ready to act to respond to eventualities.

**Future Outlook Statement:**

promote the establishment of a functional and unified disaster management system at all levels, from local to national. Furthermore, it will assist in the elaboration and implementation of complementary national, regional and community disaster management strategies to improve local capacities to prepare for and respond to the adverse effects of disasters in Georgia. These will strategically link regional, national and community level activities, with particular emphasis on complementary actions by multiple stakeholders, whilst helping to ensure that these activities are institutionalized. The development of functional contingency plans that encompass preparedness planning for increasing response capacity and clear roles, responsibilities and chains of command will be supported at the local, regional and national levels.

## Stakeholders

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### Departments/organizations that have contributed to the report

- \* Ministry of Environment Protection (Gov) - Ms. Irma Gurguliani; NFP of HFA; Env. Policy Dep.
- \* National Environmental Agency (Gov) - Ms. Marina Kordzakhia; Mr. Emil Tsereteli;
- \* National Environmental Agency (Gov) - Mr. Merab Gaprindashvili; Mr. George Kordzakhia;
- \* National Environmental Agency (Gov) - Mr. Ramaz Chitanava
- \* M. Nodia Institute of Geophysics (Acad & Research) - Mr. Tamaz Chelidze, Chairman of Scientific Council
- \* Ministry of Labor, Health and Social Affairs (Gov) - Ms. Eter Kipiani; Emergency Situations Coord.
- \* Ministry of Regional Development and Infrastructur (Gov) - Mr. Irakli Kakhidze; Reforms and Innovations Dep.
- \* Ministry of Education and Science (Gov) - Ana Keadze
- \* UNICEF Georgia Country Office (UN & Intl) - Mr Dragan Markovic