UNITED NATIONS DEVELOPMENT PROGRAMME

BUREAU FOR CRISIS PREVENTION AND RECOVERY

DISASTER RISK REDUCTION AND RECOVERY TEAM

CAPACITY FOR DISASTER REDUCTION INITIATIVE

Disaster Risk Reduction Capacity Assessment Report

For Montenegro

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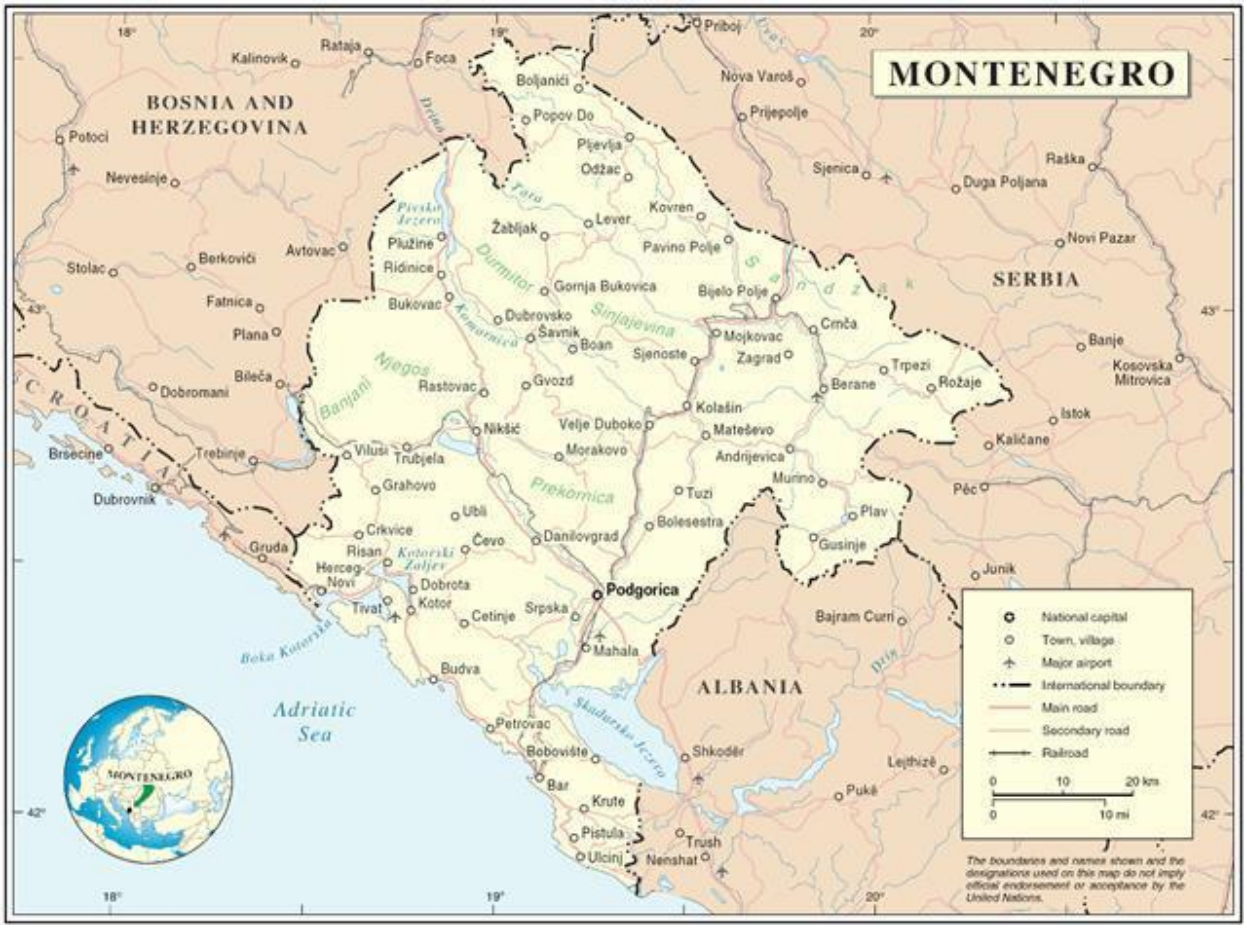
ACRONYMS

BCPR	Bureau for Crisis Prevention and Recovery (UNDP)
CADRI	Capacity for Disaster Reduction Initiative
CDG	Capacity Development Group (of UNDP)
CPR	Crisis Prevention and Recovery
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
HFA	Hyogo Framework for Action
HMZCG	Hydrometeorological Institute of Montenegro
IDP	Internally Displaced People
IPA	Instrument for Pre-Accession Assistance
MoD	Ministry of Defense
MoIA	Ministry of Internal Affairs
MONDEM	Montenegro's Small Arms and Demilitarization Programme
MRC	Montenegro Red Cross
NP	National Platform
SEE	South-East Europe
SEM	Sector for Emergency Management (of MoIA)
SOP	Standard Operational Procedure
UN	United Nations
UNCT	United Nations Country Team
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNISDR	United Nations International Strategy for Disaster Reduction
WHO	World Health Organization
WMO	World Meteorological Organization

INTRODUCTION



The Capacity Assessment Mission for Montenegro has been requested by the regional project for South-East Europe (SEE) and Turkey on Disaster Risk Management (DRM). Similar capacity assessment missions are to be conducted for Albania, Bosnia and Herzegovina, Serbia, Kosovo, Turkey, Macedonia out of eight beneficiaries of the Instrument for Pre-Accession Assistance (IPA) project (with exception of Croatia). It is meant to complement the needs assessments conducted in all eight IPA beneficiaries (by a regional consultant and a local consultant in each location) in 2010.

The purpose of the Disaster Risk Reduction (DRR) Capacity Assessment is to identify capacity gaps related to disaster risk reduction, understand desired capacities for DRR and propose recommendations on how these capacities can be achieved. The results of the DRR capacity assessments will contribute to the strengthening of capacities, through the development of strong national components, as part of the regional proposal to be submitted to the European Commission (EC) and potentially other interested donors for Phase II of the regional DRM project for the SEE- countries and Turkey.

NOTE TO THE REAER

Regarding recommendations, the report will only propose actions that can realistically be implemented in the next three to five years, based on the existing in-country

capacities to absorb them. The reader will also find the World Meteorological Organization (WMO) report regarding the Hydro-Met services in Annex 2, as well as a list of interviewees in Annex 3.

One particular element regarding the legal system needs to be explained here as this has a very important impact in advancing DRR in Montenegro, and in all countries of Former Yugoslavia. In Montenegro, as well as in other countries of Former Yugoslavia, you are authorised to initiate activities of general interest such as DRR only if there is a law, with all steps and activities defined, which authorises you to do so.

CADRI CAPACITY ASSESSMENT APPROACH

This capacity assessment is conducted by a joint initiative of United Nations Development Programme (UNDP), Capacity for Disaster Reduction Initiative (CADRI), United Nations International Strategy for Disaster Reduction (UNISDR) and United Nations Office for Coordination of Humanitarian Affairs (UNOCHA).

It uses the methodology developed by the UNDP Capacity Development Group (CDG) and is adapted for the DRR sector by the Bureau for Crisis Prevention and Recovery of UNDP and CADRI. The methodology was first piloted in Armenia in 2010 and adapted to the regional context of Balkans in 2011 by CADRI and the regional project management for South-East Europe DRM.

CADRI's capacity assessment is conducted with a clear focus on national capacities for DRR. The assessment will look into five technical areas of capacity development: ownership, institutional arrangements, competencies, working tools and resources, and relationships.

Within the Hyogo Framework for Action (HFA), and specifically regarding HFA Priority 1, the assessment will focus on ownership as a basis for setting the right enabling environment for DRR, in order to guaranty sustainability in developing capacities. It will also look at the overall institutional arrangements for DRR set in the legal base, and the level of financial resources allocated to DRR as a sign of a strong commitment.

Within HFA Priorities 2–5, the assessment will concentrate on capacities related to institutional arrangements, competencies, working tools and resources, and relationships specific to these thematic areas. In terms of recommendations, concrete capacity development actions will be proposed at the end of each of the HFA Priorities 1–5 to address any challenges identified. The level of proposed actions will take into consideration the country's real capacity to implement them within three to five years.

MONTENEGRO NATURAL HAZARD PROFILE

COUNTRY CONTEXT FROM A CRISIS, PREVENTION AND RECOVERY PERSPECTIVE[1]

Montenegro emerged as a sovereign state just after over 55 percent of the population opted for independence – through a referendum in May 2006. The vote heralded the end of the former Union of Serbia and Montenegro, itself created only three years earlier out of the remnant of the former Yugoslavia. Over the last twenty years, during the disintegration of the former Socialist Federal Republic of Yugoslavia, Montenegro has experienced: United Nations (UN) sanctions[2]; economic collapse; hyperinflation; NATO bombing; political change and reform; economic recovery and independence; and a programme of pre-accession assistance from the European Union. During this time, no war was fought on Montenegro soil and there was no internal ethnic conflict. However, in 1993, around 64,000 refugees were registered in Montenegro, and during the height of the Kosovo crisis in 1999, Montenegro hosted as many as 100,000 Internally Displaced People (IDP)[3].

Since 2002, there has been a period of solid economic growth. A far-reaching programme of privatization has been implemented, public debt has been reduced to a more acceptable level and legislation has been enacted to regulate and liberalize the business environment. Fuelled by a tidal wave of foreign direct investment, a construction boom, flourishing tourism and profit from capital market transactions have ensured significant benefits for entrepreneurial and business oriented citizens. Furthermore, since 2003, the government has pursued a Poverty Reduction Strategy through which some 100 million Euros has been spent annually on different programmes that directly or indirectly contribute to poverty reduction.

Nevertheless, the country's most significant challenge remains the level of economic vulnerability and a serious risk of falling under the poverty line, affecting more than one fifth of the population. Development trends in Montenegro during recent years resemble the textbook case of a 'bubble' economy, in which large capital inflows into 'non-productive' sectors (e.g., real estate, finance) combined with a rigidly fixed exchange rate to produce unsustainable large current account deficits.[4] Reductions in external financing will likely produce punishing declines in production, incomes, and hence in domestic demand and employment—with commensurate increases in poverty and social tensions.

Montenegro's constitution defines the country as an 'eco-state'. While the main legal and policy frameworks have been adopted as a means of harmonization with international norms and standards, efforts are underway to put these into effect. Within this sector, as in others, implementation capacities continue to require substantive support. Furthermore, Montenegro's potential to position itself to take on emerging issues such as climate change mitigation and adaptation, to promote clean

[1] *Montenegro report*, Economist Intelligence Unit, July 2010.
Crisis mitigation in uncertain times project document, UNDP Montenegro, 2009.
UNDP Montenegro Country Programme Document 2007-2011, UNDP, 2007.
UNDP Montenegro website, http://www.undp.org.me/index.html.
[2] UN Security Council sanctions against FRY were imposed on 30 May 1992 with Resolution No. 757. They were lifted 1,253 days later with Resolution No. 1022, which was passed on 22 November 1995.
[3] ISSP / UNDP: Household Survey of RAE, Refugees and IDPs; UNDP, Podgorica, 2003
[4] According to EIU reports, the current account deficit in 2008 was above 40 percent of GDP.

growth, and to take advantage of its green tourism potential are central to the government's vision of the future of the country and its economic development.

DISASTER RISK PROFILE OF MONTENEGRO[5]

Almost all of Montenegro is exposed to frequent seismic events, especially along the coast, the Zeta-Skadar depression and the Berane basin. Around 40 percent of country's territory is within a zone of anticipated seismic intensity, greater or equal to magnitude 8 on the Richter scale. This affects around 60 percent of the country's population. A devastating earthquake in April 1979 occurred on the coast and wider area of Skadar Lake – it caused damages amounting to $4 billion, affected 100,400 people and killed 136 people. There is a high probability that future earthquakes would activate large landslides and rockslides.

Meteorological hazards in Montenegro include floods and drought. Floods are the most frequent natural hazard (there have been six destructive floods in the last 20 years). Pazickopolje and the Lim River valley are most prone to flooding. The biggest floods were recorded in the upper flow of the Tara and the Lim rivers in 1963, 1979, 1999 and 2000. Strong droughts and increased summer temperatures were recorded in the periods 1981–1990 and 2000–2009.

According to available projections, temperatures will rise 0.60 degrees to 1.3°C by 2030, depending on the season and the area. Owing to changes in precipitation, there will be a sharp increase in variability of river flow, characterized by flooding and hydrological drought. Coastal flooding and storm surges will also significantly increase.

Little information is available concerning specific disaster vulnerabilities and capacities. Much data is merged with data from Serbia. Average annual losses from major disasters comprise 1.6 percent of GDP (according to Emergency Events Database, EM-DAT). Vulnerabilities include outdated building codes, unplanned land use and forest and mineral resource exploitation. Capacity needs identified in various studies include the establishment of a National Platform (NP) for: coordinating disaster risk reduction; developing a country-level GIS database for spatial planning activities; preparing a disaster management plan for the country; and improving and developing legislation on land-use planning and building codes.

Climate-related hazards and a large number of illegal and irregular constructions have seriously affected Montenegro's vulnerability. Official sources believe that there are over 100,000 illegal and irregular constructions in Montenegro, which if evenly distributed in a country with an average household size of 3.4, suggests every other household owns this type of construction.

Furthermore, national authorities consider that a vast majority of these housing units, especially those built on the coast, carry a high level of seismic risk and, as the

[5]Montenegro Ministry for Spatial Planning and Environment, 2010, *Initial National Communication on Climate Change of Montenegro to the United Nations Framework Convention on Climate Change (UNFCCC)*;
UNISDR, 2008, *South Eastern Europe Disaster Risk Mitigation and Adaptation Initiative: Risk Assessment for South Eastern Europe, Desk Study Review*;
UN ISDR, 2009, *The Structure, Role and Mandate of Civil Protection in Disaster Risk Reduction for South Eastern Europe*.

country recently found out, are highly vulnerable to floods (there is no disaggregate data on risk of either hazards). The communities are likely to experience severe negative externalities of unplanned and unregulated construction such as congestion, lack of access to many services and pollution – from a disaster risk perspective a possible domino effect of earthquakes and a host of other climate-related disasters, including floods, is likely. Montenegro represents a case where a rush for growth has triggered haphazard development including increased human settlements, investment in high-risk coastal areas and exposure of a greater number of people and assets in the path of floods. All of this generates vulnerability and increases the risk of large-scale damages and fatalities during a disaster.

The combination of the increase in frequency and intensity of climate-related hazards and the increase in haphazard development in Montenegro constitutes a higher risk to great economic and health impacts of these hazards. The question is how to achieve its economic and developmental targets while accounting for current and future risks. The answer to the question is twofold: adapting development to gradual changes in average temperatures, sea levels and precipitation; and reducing and managing the risks associated with more frequent, severe and unpredictable extreme weather events. In order to achieve this, cost-effective strategies for risk reduction and management ought to be integrated into development planning and public investment while simultaneously building a culture of safety and resilience within its population.

UNDP crisis, prevention and recovery responses and challenges

To date, UNDP Montenegro crisis prevention and recovery (CPR) response has primarily focused on IDPs (through the sub-regional IDP programme covering Kosovo, Serbia and Montenegro) and Montenegro's Small Arms and Demilitarization Programme (MONDEM). UNDP's Montenegro office developed a very solid integrated programme (crisis mitigation in uncertain times) that combines elements of democratic governance (alternative dispute resolution and institution building), poverty reduction (employment generation) and CPR (small arms reduction). This aims at providing a comprehensive approach to addressing tensions, primarily in the volatile north of the country. Technical CPR expertise is embedded in projects, most notably through the MONDEM project.

Bureau for Crisis Prevention and Recovery (BCPR) has also provided a technical contribution to the regional project on DRM for SEE countries – Montenegro is part of BCPR's Disaster Risk Reduction and Recovery Team and have organized regional DRR overview training in June 2010 for the eight IPA beneficiaries in Montenegro. BCPR supported the recruitment of an international consultant within the framework of the project who coordinated the work of a group of national consultants (including one in Montenegro), and has provided technical contribution and comments to the national needs assessment report on DRR, conducted by the national consultant in 2010. BCPR also supported the organization and delivery of the National Policy Dialogue on DRR, as part of technical contribution to the regional programme on DRM for SEE.

UN System in Montenegro

At the end of 2009, with the full endorsement of the government, the UN agencies in Montenegro prepared an Integrated UN Programme for Montenegro that provides a strategic framework for cooperation during the period 2010–2015. The UN resident agencies participating in the Integrated UN Programme are UNDP, United Nations Children's Fund (UNICEF), United Nations High Commissioner for Refugees (UNHCR), World Health Organization (WHO) and International Organization for Migration (the latter being a non-UN member of the UN Country Team). The regionally-based organizations are Food and Agriculture Organization of the United Nations (FAO), United Nations Industrial Development Organization, United Nations Environment Programme (UNEP) and United Nations Educational, Scientific and Cultural Organization. All of the above, together with the UN Resident Coordinator, compose the UN Country Team. The World Bank, United Nations Entity for Gender Equality and the Empowerment of Women, and International Labour Organization are also working in the country, but at the moment they are not part of the Integrated UN Programme.

In close collaboration with all relevant national counterparts and development stakeholders, the UN Country Team in Montenegro is providing policy advice, technical assistance and advocacy in key areas. This will help Montenegro advance through the process of European integration and achieve development targets in accordance with the national development strategies, Millennium Development Goals and other internationally agreed goals.

In June 2009, the United Nations Country Team (UNCT) in Montenegro agreed on the formulation of an Integrated UN Programme, Results and Budgetary Framework (the United Nations Development Assistance Framework**,** UNDAF) for the period 2010–2015 and the creation of a UN Country Fund. Montenegro is one of the 2010 UNDAF rollout countries, and this will be the first implementation of the UNDAF in independent Montenegro covering the period 2010–2015. The Integrated UN Programme addresses the environmental issue at the outcome and lower levels as provided below:

- Climate change adaptation and mitigation measures are designed and implemented to accelerate the use of renewable, clean energy, carbon trading and energy efficiency, thereby achieving low carbon emissions, climate resilient growth and better management of human health impacts;

- Established system for conservation and sustainable management of natural resources, effective prevention, control and reduction of environmental risks, and enhanced environmental awareness and participation by children, young people and adults;

- Established system for strengthening entrepreneurial capacity building and facilitating private sector partnerships for ‘green jobs’ rural livelihoods and development of Medium, Small and Micro Enterprises (MSME) in order to improve economic choices and achieve balanced regional growth, as well as address gender specific concerns and interests.

Under the UNDAF, UNDP will support the Ministry of Sustainable Development and Tourism and local authorities by developing bylaws and procedures to legalize informal settlements[6]. This will be achieved through the capacity strengthening for the development of urban plans, which integrate climate change mitigation and adaptation mechanisms, energy efficiency concerns and disaster risk reduction. UNDP will provide advisory services to the Ministries of Finance and Economy to develop incentives for energy efficient practices and technologies in residential and service sectors, catalyzing carbon-related finance and the diversification of the energy supply through renewable sources of energy. The UNDP country office will continue to focus on creating climate resilient communities, economies and ecosystems through providing technical and policy support, specifically for utilizing ecosystem services as an input for local development. This will be done through: catalyzing sustainable finance; strengthening the management of protected areas; creating green jobs and strengthening standards of provision of sustainable tourism services; and healthy food production in the northern region. The development of regional eco-trails/Via Dinarica[7] will promote regional cooperation and incentivize local development as well as sustainable and culturally sensitive tourism. Environmental threats, which pose an increasing challenge, will be addressed by strengthening the institutional system for disaster risk reduction, monitoring, evaluation and remediation of industrial waste and pollution, and natural disasters.

The UN office in Montenegro identified capacity development as one of the key cross-cutting areas of support to the national counterparts within the next UNDAF cycle. It intends to support public administration reforms and develop an institutional legal framework, and, among others issues, address disaster risk reduction. Climate risk management and disaster risk reduction are among the priority areas of the next planning phase of UN Montenegro, focusing on capacity development for adaptation and mitigation including risk assessment, monitoring and reduction of underlying risks, effective early warning systems and building a culture of safety and resilience.

UN Montenegro is one of the pilot countries of the 'Delivering as One' approach. This approach has enhanced the cooperation between the UN and the government, and has had a particular impact on complex or sensitive issues.

[6] Irregular, illegal or informal constructions in Montenegro generally fall under three broad categories: (A) building constructed on a parcel of land that legally belongs to the owner who obtained the 'construction permit' but did not secure the 'use permit' from the municipal authorities, which is required by law to ensure that the housing unit was built according to specifications approved in the 'construction permit,' (B) building constructed on own land by the *bona fide* owner of the land, but without both the 'construction permit' and the 'use permit,' and (C) building constructed on state or municipal land without expressed consent of the owner and without necessary 'construction or 'use permit'.

[7] Via Dinarica is a regional initiative led by UNDP Montenegro that supports a set of connected trails spawning the countries of the Dinarides or Dinaric Arch, a mountain chain the Southeastern Europe (Slovenia, Croatia, Bosnia and Herzegovina, Serbia, Kosovo, Albania and Montenegro).

THE ASSESSMENT FINDINGS

HFA PRIORITY 1:
Ensure that DRR is both a national and local priority, with a strong institutional basis for implementation.

Legislative Framework

The Government of Montenegro has adopted the National Strategy for Emergency Situations, which is proposed by the Sector for Emergency Management (SEM) of the Ministry of Internal Affairs (MoIA). The strategy was developed in consultation with over 30 organizations, including private sector and non-governmental organizations (NGOs). The SEM has also promoted the adoption of the Law on Rescue and Protection and a number of legal regulations, for instance, covering transportation of dangerous goods, which are in line with the European Agreement on Carriage of Dangerous Goods by Road.

The assessment mission was informed about the National Plan for Rescue and Protection, which is also adopted at municipal level and at the level of certain enterprises. The plan is based on the vulnerability assessments for all major hazards, as outlined by the National Strategy for Emergency Situations, which in turn led to the establishment of sectoral national plans, as follows:

- National Plan for Protection from Earthquakes
- National Plan for Fire Protection
- National Plan for Protection Against Chemical Accidents
- National Plan for Protection Against Biological Accidents
- National Plan for Protection Against Radiation Accidents
- National Plan for Search and Rescue in Civil Aviation Incidents and Accidents
- National Plan for Protection Against Floods
- National Plan for Protection Against Landslides and Avalanches
- National Plan for Protection from Extreme Weather Phenomena
- National Plan for Protection from Traffic Accidents on Road and Rail

- National Plan for Protection from Technical and Technological Hazards
- National Plan for Protection from Destruction of Power Plants.[8]

However, there has been little evidence of quality risk assessment (including vulnerability, hazard and capacity assessment) in the development of the above plans. The Law on Local Governance has been adopted by the Government of Montenegro. This enabled the creation of municipal rescue teams (and training and equipping them), as well as delegating certain authority for small- and medium-scale emergencies. The intention of at least some municipalities is to develop municipal plans which replicate national plans, but with an adjustment to the local context. However, most municipalities lack human capacity and funding to take up this initiative. One of the major issues at municipal (but also at national) level is how to address existing illegal construction that is not aligned with construction norms, which increase the vulnerability of the population to various hazards. In general, disaster preparedness and response systems seem to be rather centralized.

The Law on Construction establishes construction practice and construction codes. However, in reality new codes and practices are better applied to new constructions and to a lesser extend to older and illegal constructions. Although this particular law has a provision for disaster situations, most of the sectoral legislative documents do not mention DRR.

There are specific laws on hydro meteorological services and hydrographical services, which define the scope of work, roles and responsibilities related to that area. The information contained in the laws is not very clear, causing some challenges on the interpretation and implementation of the laws. There is also a Law on Environment and Air Quality – however, the by-laws accompanying these legislative acts are yet to be developed.

There is no legal basis on the role of the army in DRR and disaster response. There are, however, a National Security Strategy and a National Defense Strategy. There are no by-laws and standard operational procedures (SOPs) on the role of the army on disaster management. The Ministry of Defense (MoD) was not involved in the development of any of the legal documents related to disasters. This, however, does not exclude the cooperation between the MoD and the SEM, which worked together during the floods in December 2010. The MoD is considering the development of internal SOPs for disaster response.

The Red Cross has a dedicated legal act (Law on Red Cross), which describes the role of the Montenegro Red Cross (MRC) in emergencies such as training, evacuation support, family unification, tracing and first aid. The Red Cross has its own strategy for the period 2010–2014 and their role is mentioned in the Law on Rescue and Protection.

[8] These plans also cross-referenced from the United Nations Office for Coordination of Humanitarian Affairs (UNOCHA) mission report to Montenegro in November 2010.

The Ministry of Environment hosts the Hydro-Meteorological Services, Agency for Eco-toxicological Research, Environmental Protection Agency, Institute for Nature Protection and the Coastal Management Unit. There are laws on environmental protection, national parks, eco-toxicology, and air and water pollution. There have been no DRR components reported in the mentioned above legislative documents. The Ministry of Environment is developing a strategy on prevention of pollution.

The understanding of the capacity assessment mission team is that there is no specific legislation on seismic service. The Seismological Observatory is mandated only to conduct seismic monitoring and it is not very clear how the data is being utilized by the government, private sector, civil society and public. The observatory has been producing quite a large amount of scientific and very relevant data, and is capable of producing valuable information, but there is a need to make good use of this data and identify the adequate channels to share and coordinate information. The observatory is being transferred from Ministry of Economy to the Ministry of Sustainable Development and Tourism.

Institutional Framework

The Emergency Management Coordination Team has been established as proposed by the SEM. The team is headed by the Prime Minister and all ministers are members of the team. The SEM is the leading national agency responsible for issues related to DRR, which is well established and recognized by other national and international organizations.

The DRR capacity assessment mission coincided with the first workshop on the establishment of a DRR NP in Montenegro, which was co-organized by UNDP Montenegro and the SEM. The SEM has also signed a number of bilateral partnership agreements, mostly related to cooperation in emergency response, with countries such as Bosnia and Herzegovina, Slovenia, Croatia, Macedonia, Greece, Serbia and the Russian Federation. Montenegro also participates in regional and international frameworks in the area of disaster management such as Disaster Preparedness and Prevention Initiative, Programme for the Prevention Preparedness and Response to Natural and Man-Made Disasters (PPRD South), Civil-Military Emergency Preparedness, and the Organization for the Prohibition of Chemical Weapons, among others.

Montenegro reported on the implementation status of the HFA for the period 2007–2009. The report demonstrates good awareness on HFA, its priority areas, and indicators in the national context of Montenegro. The SEM only started to consider and address DRR in 2010, while still mostly focusing on response and in part, preparedness. The major concern with taking up new tasks in DRR is lack of funds.

The Hydrometeorological Institute of Montenegro (HMZCG) has 112 staff, of whom 59 are based in Podgorica. The institute is under the Ministry of Sustainable Development and Tourism and is responsible for monitoring the meteorological,

hydrological and hydrographical situation, as well as air and water quality and pollution.

The MoD does not have a civil-military cooperation unit, which limits the role of the army in disaster response. The role of the ministry in disasters is not clear and has not been identified at national level or indeed within the ministry itself. In practice, during the floods of December 2010, the ministry's operations centre reported to the operations centre of the SEM, and based on an informal and personal level the cooperation worked well. Nevertheless, it is necessary to develop an institutional framework for this partnership.

The majority of municipalities do not have enough capacity to prepare and protect themselves from existing risks and hazards. The level of capacity is much lower compared to the central level. At the same time, it is the responsibility of the municipalities to fund the municipal protection service (local rescuers). However, in most of the cases, funding is limited to salaries only. Some municipalities, however, have established reserve funds for first immediate response and some have mid- and long-term development plans (as in the municipality of Bar). Nevertheless, plans do not, in most cases, include the existing risks and hazards. Information flow from institutions such as the HMZCG to municipal level is not regular and is not clearly framed. Municipalities are also not mandated to have cross-border cooperation with municipalities from neighbouring countries.

Spatial planning is also a centralized function. Any construction above a thousand square metres is approved at the national level. The major problem regarding construction is the reinforcement of existing construction codes, especially for illegally constructed buildings – even illegally constructed buildings are eligible for partial compensation from the government once damage assessment is completed.

HFA PRIORITY 1: RECOMMENDATIONS

1. Training for municipal level planners and managers on DRR – what its linkages are with development and how to integrate DRR into the daily work of municipalities;
2. Use the NP to clarify roles and responsibilities of various DRR players;
3. Advocate for a legally backed obligation for DRR funding into the national budget;
4. Organize a gender sensitive DRR mainstreaming training programme for planners in ministries – DRR needs to be more mainstreamed into sectoral legislation and works.

HFA PRIORITY 2
Identify, assess and monitor disaster risks and enhance early warning

Earthquakes, fires and floods are considered to be the main hazards in Montenegro. Risk identification, assessment and monitoring is mainly organized and implemented at the national level. However, in many cases, the assessment team witnessed some confusion between hazard and risk identification. Terminology on risk identification,

hazard identification, assessment etc. seems to be a challenge. A nationwide agreement on use of DRR terminology might be helpful. Based on the identified risks, the national plans/strategies mentioned under HFA Priority 1 are developed. The Law on Rescue and Protection defines the hazard identification methodology, but very little reflects on risk identification. There are no risk assessments conducted at municipal level or at the level of companies and organizations.

The HMZCG, by using its network of monitoring stations (10 automatic stations, 20 climatological stations, 60 precipitation stations and 51 hydrological stations, out of which 23 are automatic) provides data on a regular basis to the SEM and other government organizations for free. Customized reports and other users are charged. The institute does not have a specific methodology for risk identification when monitoring floods, droughts and fires. The HMZCG has counted on the support of the World Meteorological Organization (WMO) for risk assessment and monitoring. However, lack of funding and human capacity is a concern for the smooth functioning of the institute.

The HMZCG maintains two types of databases – meteorological and environmental. The data originating from the automatic stations is available on the institute's website and is free of charge. Moreover, a weekly, monthly and seasonal climatologically analysis is compiled and available for free on their website Daily reports are produced and disseminated to governmental institutions, but municipalities do not always receive the data. There is also a threshold for water levels in rivers and once the water increases beyond these levels, early warning messages are disseminated.

Montenegro has joined the ARGOS[9] consortium to enable better identification and monitoring of chemical, biological, radiological and nuclear threats.

As mentioned earlier, the Seismological Observatory in Montenegro is responsible for the monitoring of seismic hazards – probably the best monitored hazard in the country. Other hazards are monitored to a lesser extend or not at all.

A special unit within the SEM for the evaluation of threats has been established with the support from the Danish Emergency Management Agency in terms of training and software. The SEM has made progress on making DRR and risk identification a priority for a broader group of governmental institutions. Moreover, financial constraints to be able to advance DRR agenda remain high and allocation of more financial, technical and qualified human resources to the area of risk identification is critical.

Methodology for the evaluation of threats and methodology for developing action plans were developed by SEM. However, it seems that the methodology is not widely

[9] **ARGOS** is a Decision Support System (DSS) for crisis and emergency management for incidents with chemical, biological, radiological, and nuclear (CBRN) releases. The current member countries of the ARGOS Consortium are (March 2010): Australia, Brazil, Canada, Denmark, Estonia, Faroe Islands, Ireland, Lithuania, Montenegro, New Zealand, Norway, Poland and Sweden.

acknowledged or practiced, particularly at municipal level. Damage assessments are mostly only conducted at municipal level. A large number of municipalities do not have any early warning mechanisms or systems in place to reach the population. When early warnings are put in place, they are usually issued by the central level.

Real-time data exchange exists only for hydrometeorological, seismic and fire hazards at national and cross-border level. There is a strong recognition from SEM to expand risk identification with data exchange at national and international levels, to broadening the range of hazards that Montenegro is facing. The Seismological Observatory is currently developing micro-zoning hazard maps for Montenegro. Nevertheless, the link between available maps and the utilization of this information for spatial planning is not clear. The observatory acquires information from three types of networks it operates: seismological short period, broadband, MedNet and accelerometers. There are no early warning messages that are produced in case of registered increase in seismic activity. Moreover, the observatory does not publish regular specific information on seismic activity. Most of the information produced by the observatory is freely available on Internet, and there is a high number of hits registered. Nevertheless, there is no formal mechanism that facilitates the use of the information.

The MRC is not using the existing risk identification methodology either and does also not receive regular information on risks (only in emergencies and through the SEM). They have conducted vulnerability and capacity assessments in ten pilot communities.

The Ministry of Environment conducts risk monitoring but issues limited early warning messages. The ministry developed predictive hydrological models and is considering the development of similar models for other risks. Existing risks are considered in the ministry's development plans through policy documents – however, it is not clear how this information is used in the development of programmes of other governmental institutions. In case of forest fires, there is no monitoring and prevention mechanism in place, even in protected areas.

HFA PRIORITY 2: RECOMMENDATIONS

1. Risk identification should become a higher priority for the government with adequate allocation of resources. This will also enable the development of more accurate contingency and response plans;
2. Unified risk assessment methodology can be combined with the existing risk identification methodologies. Training on its utilization should be conducted to sectoral experts and municipalities. The Global Risk Identification Programme of UNDP has methodologies that could be useful;
3. Risk assessments are often confused with hazard mapping or post disaster damage assessment. United Nations Disaster Assessment and Coordination and Post Disaster Needs Assessment training will also be useful;
4. The Seismological Observatory produces valuable information and a large amount of data. It is important to define ways for better utilization of the

seismic data produced, and identify roles in risk identification (seismic risk), as currently the observatory only deals with monitoring;

5. It is recommended to consider regular seismic activity compilation and dissemination, framed by by-laws, and their utilization for spatial planning and monitoring of the seismic resistance of buildings:
6. Establish cross-border partnerships on usage and mechanisms for production and utilization of climate change related data and its integration into development plans and agriculture, among others;
7. As UN Montenegro is considering DRR to be part of the next mid-term development plan, UN DMT roles and responsibilities training for UNCT is recommended.

HFA PRIORITY 3
Use knowledge, innovation and education to build a culture of safety and resilience at all levels

In Montenegro, the mandate for raising awareness in DRR is not clearly defined by legislation. Overall, some awareness raising initiatives have taken place, but there is no systematic public awareness strategy to increase awareness in DRR, or a systematic information dissemination mechanism to the general public and specialized agencies on DRR that promotes risk reduction actions. The SEM has only been involved in DRR since last year – their mandate used only to address disaster management focused on response.

In terms of institutional arrangements and coordination mechanisms, both the HMZCG and the Seismological Observatory provide technical support to the SEM. Since 2007, the HMZCG has been involved in DRR programming, especially through the WMO hydrometeorology project. The HMZCG is under the Ministry of Sustainable Development and Tourism. Personnel have been trained by WMO at a technical level and information is currently more reliable. The HMZCG sends reports to the government in case of an emergency and to different sectors (for example, the Ministry of Environment exchanges information in case of a disaster, as well as MRC, which receives information from both the Seismological Observatory and the HMZCG, but not through a system or on a regular basis). Most of the data is provided free of charge to the government and universities.

Collection of data and information sharing needs to be improved and done in a systematic way. For example, it is still to be decided who has the responsibility to treat data and process information and to make risk assessments. One of the major concerns of the Seismological Observatory, that crosses all sectors, is the retention of staff as the majority of staff leave to go to the private sector or emigrate due to low salaries. When investing in capacities, it is important to think of a long-term strategy

to retain staff in the system – this is paramount in order to deliver results and preserve continuity of work.

In terms of DRR awareness-raising, the SEM plans to hold a major campaign for the public regarding the new 112 emergency number. At central level there is no budget to develop DRR activities, as the existing budget is allocated to covering salaries.

Furthermore, the Department of civil emergencies and civil security was established four years ago with the purpose of working from prevention to recovery. At local level, the department states that there have been limited awareness-raising activities. However, a campaign for sixth grade students is in place with the support of the EU, which has been implemented throughout all Montenegro, covering 62 elementary schools and targeting around 5,000 students (aged twelve). This awareness raising/training activity has been well tailored for its audience and educates students on what to do before and after an earthquake strikes. Moreover, students are taken to fire stations to interact with fire brigades. For the public in general, some activities are planned but there is a lack of funds to implement them.

In Berane region, at municipal level, there is a need to raise awareness among the population regarding floods and earthquakes. The communities were informed about the heavy rain and the possibility of flooding but they did not believe it would happen and ended up fleeing their homes at the last minute. However, budget is a serious challenge, and even the payment of salaries has been delayed. Moreover, a specific budget for DRR has not been assigned.

At the moment, the Red Cross does not have campaigns raising awareness among the population. However, MRC and its local, national and regional teams are well placed to work on awareness-raising. Despite the fact that the Red Cross has not been working in DRR, there is a strong interested in starting to work in this area, especially focusing on vulnerable groups and children. Their cooperation with the SEM and other stakeholders is good and the Red Cross is aware that their work cannot be limited to disaster response.

In regards to DRR training, the SEM has developed training programmes for the central and municipal rescue teams in relation to specific hazards – training programmes are delivered regularly. Fire-fighters and decision-makers at central level, among others, have also been receiving training. On the other hand, police have their own training. Non-governmental organizations also have their own training (funded by the department of civil emergencies). Participants are selected randomly to participate in the seminars/training at central level. Training is needed in municipalities in order to strengthen capacities in terms of prevention/mitigation and recovery as the focus is currently on disaster response.

The MRC has been training staff in first aid and according to the new legislation – it has 10,000 volunteers of which 1,000 are operational on a daily basis. The Red Cross has 23 branches and 160 staff, and the preparedness response teams are trained at local, national and regional level. Moreover, they have seven staff from the regional

disaster response teams that have been trained to be deployed internationally. The Red Cross maintains a good cooperation with other Red Cross organizations in the region and with UNHCR in Montenegro.

The MRC wants to join the Red Cross DRR regional programme which will help them improve their awareness-raising activities, and by doing so, they will be able and willing to increase awareness among the population regarding earthquakes. Along with the sector of emergencies, the Red Cross has started visiting schools as part of their campaign, targeting the sixth grade. Moreover, the Red Cross is willing to create a network with civil society organizations, private sector and the government, among others, with the purpose of promoting a DRR campaign.

The educational system in Montenegro does not embrace the concept of DRR and risk awareness in its curriculum. Most of awareness raising sessions in school are ad hoc. It is expected that the new institution in charge of disaster management will have a role to play in creating a new awareness raising module that could be integrated nto the school curriculum.

At the moment DRR is not included in the school curriculum. However, there seems to be a political will to introduce DRR through optional modules. Last year, there was an education reform for both formal and informal education. All curriculums were reviewed and aligned with the reform. The Ministry of Education developed around 40 optional modules – DRR content could be included in one of these modules such as in the civic education module.

Before the educational reform, teachers were trained in disaster response. At the moment, and due to the educational reform itself, the focus has been in teaching methodologies – there is no specific budget for teacher training. Regarding awareness-raising among students, no campaigns have been developed. The idea of launching DRR through head teachers is one of the possibilities to introduce this subject (one lesson per week lasting 45 minutes). In terms of universities, there is no course specific for DRR/DRM or in related disciplines – students must move to places such as Belgrade or Zagreb to study physics, hydrometeorology etc.

The common understanding of DRR terminology is still an issue – even within SEM and especially among local authorities. The challenge is even deeper at local level. The MRC has already started to discuss the need to have a more harmonized terminology. Ministries do not have a good understanding of DRR and subsequently of its terminology. In regards to journalists, they are usually not aware of issues related to natural disasters, and therefore the broadcasted information is not always adequate, or indeed accurate

In terms of international cooperation**,** there has been training on floods and fire-fighting but training still needs to be improved – there is no specific budget for this type of training. Facilities are not adequate and coordination with fire brigades, police

etc. needs to be improved. Training has been done with the cooperation of the MoD and the United States of America (USA) – but there is no coordination mechanism, therefore support is done on had hoc basis and by request by the government, either from national or central level. There is a need to improve training in floods and fire response as there is experience but no technical knowledge and there needs to be more detailed training – for example on understanding disasters and their impacts. Coordination and knowledge of specific roles and responsibilities need to be substantially improved.

The USA Embassy has offered training in the USA (exchange of practices) in terms of emergency preparedness. In September 2010, there was classroom training in first aid, combat life-saver for soldiers and one week of simulation exercises. This training will take place again in 2014. Three workshops also took place as table-top exercises with the Ministry of Interior, MoD, NGOs and the Red Cross. This event was the only one that brought all stakeholders together. There is a need to build capacities at the MoD, to contribute to a more efficient emergency response.

In terms of disseminating data, the Seismological Observatory has a good cooperation with several countries through the NATO project. There is a Memorandum of Understanding to exchange data in real time.

HFA PRIORITY 3: RECOMMENDATIONS

1. Develop a strategy for a national public awareness campaign on DRR;
2. Insert DRR content into existing optional modules such as 'civic education' and develop a DRR training of trainers course for teachers;
3. Increase cooperation between the Ministry of Education and SEM, as well as with UNICEF and the Red Cross for awareness raising purposes in schools;
4. Develop a training of trainers for journalists on DRR terminology and media products;
5. UNISDR terminology should be translated to Montenegrin and disseminated among all DRR technicians that are likely to be involved in DRR.

HFA PRIORITY 4
Reduce the underlying risk factors

Concerning the Environmental and Natural Resource Management, the HMZCG has a strategy for climate change adaptation, integrated into risk reduction, and associated with existing variability and future climate change. It would be desirable that the HMZCG cooperates with other national hydrological and meteorological services and research centres within the neighbouring countries, including the new regional centre in Belgrade, Serbia. This would support the production of local scale projections of climate change and study the climate variability. The HMZCG has a strategy for climate change adaptation but have no specific or active role relating to this matter, as

they have not been fully taken into account by the government. Moreover, The MRC is very interested in developing a programme on adaptation and climate change.

Regarding social and economic development practices, Montenegro needs to focus on DRR and food security – there is no known work covering this area. Currently, there is no law that governs a possible disaster recovery process and, as a result, there is no obligation or mechanism defined to address recovery issues in a comprehensive manner, taking livelihoods into account. In case a disaster strikes, an assessment of damage takes place under the responsibility of the damage assessment committee at municipal level. However, this assessment is not being done systematically, and there is no indication that the data is used for recovery.

Most of the population do not have (or are not aware of the need for) insurance against natural disasters – it barely exists in Montenegro. It is the responsibility of the citizens to activate the insurance, but since it is not mandatory by law, the population and companies don't see the need for it. In practice, citizens expect the State to somehow compensate them. Furthermore, it is not clear if the insurance system in the country is capable of issuing insurance products covering natural disasters, as there is no proper risk assessment that could be used by the insurance companies for costing their products.

MRC ensures that post-disaster assessments take place by local teams. The Red Cross receives donations to purchase home appliances to families in social need – the USA has made a donation to Montenegro to provide toolkits for immediate recovery.

In terms of development plans, the SEM is working on the provision of technical advice for incorporating DRR related components into relevant development plans of the different sectors of the government.

In terms of land-use planning and other technical measures, building codes are in place in Montenegro. However, there seems to be a need for an upgrade to align them with the European standards and European Union requirements. Reinforcement of existing building codes is also an issue to be addressed.

The Seismological Observatory is responsible for micro-zoning. Regarding this issue, the building code is good but needs to be updated. At the moment it is not clear who is the responsible organization for the legalization of the buildings – this project has been at the preparation phase for one year, under the responsibility of the Ministry of Economy. The same applies to urban planning. At the moment the Ministry for Sustainable Development has the responsibility of legalizing the building as a temporary arrangement.

In addition, there is no monitoring/control of buildings. The last study that assessed 60,000 buildings was done in 1979, but no one seems to know where this study is, although it is most likely to be found in Skopje. If found, this study could serve as a good basis to start a new building assessment as it would only need to be updated,

rather than started from scratch. However, the situation seems to be better than in any other society in transition. The new law should stress the importance of making buildings resilient.

It is reported that major infrastructures, such as roads and bridges, are constructed without guidance from proper geological studies, which could advise against building in areas subject to landslides. Critical buildings, such as schools, have not been assessed and most of the buildings are old. There are around 163 elementary schools, including satellite schools, and 40 secondary schools in Montenegro. According to the Ministry of Education, more that 50 percent of the buildings are in good shape. One exception seems to be the healthcare sector that has done extensive work, with the support of WHO and the Seismological Observatory, to assess the state of buildings and make sure all health infrastructures are earthquake resilient (every healthcare building has its own earthquake resistance ID card).

The responsibility of approving construction is still not clear among municipalities and central government. As mentioned earlier, municipalities approve construction up to a thousand square metres, then it is the Ministry of Interior that is responsible for the approval. Central government is responsible for reinforcing the law, however urban planning is still highly centralized.

Informal construction is an enormous challenge. Many of the builders do not take seismic parameters, included in the law, seriously. They do no respect the initial design and they use materials of poor quality. For example, there has been illegal construction on the coastal regional and in Podgorica, but the issue of corruption has been mentioned as one of the challenges to be addressed. Moreover, harmonization and regularization of illegal construction is seen as a priority, as many new constructions increase the risk of making people more vulnerable to existing hazards.

In Berane, for instance, housing for Kosovo refugees was built at the river bank and the neighbourhood was flooded twice last year (November and December 2010). On the other side of the bank, there are settlements of Roma refugees, who have also had to deal with floods. UNHCR and the municipality supported the Kosovo settlement during the construction period and during the floods. Now it is necessary to construct an 800-metre long wall around the settlements to avoid flooding every time there is heavy rain.

The Ministry of Environment is involved in urban planning regarding the construction of critical infrastructures such as bridges, schools and hospitals. In terms of spatial planning, communication between ministries is very good. An environmental assessment is compulsory and seismic risk is taken into account. Climate change is taken into account as well, but not in a systematic way. For example, there is a proposal to only approve construction that is 100 metres from the sea line.

The population is not informed about the risks of building in seismic areas or building non-seismic resistant buildings. For example, Berane is the second most seismic

prone municipality in Montenegro, but there has been no awareness-raising among the population regarding earthquakes, and people fear that an earthquake might strike soon.

The Red Cross also pointed out that municipalities need to know their role regarding DRR. Last year, the municipality of Berane visited schools and other public buildings along with experts, to assess these buildings. A database with collected information from this assessment was created (regarding earthquake and fire). In the future, there is a need to build according to European standards, but it is still uncertain what will be done with the mentioned buildings' assessment. At a municipal level, there is a need to improve substantially prevention, preparedness and response to earthquakes.

HFA PRIORITY 4: RECOMMENDATIONS

1. Conduct training at central and municipality level for mainstreaming DRR, climate change and environment sustainability into their planning mechanism;
2. Advocate for the respect of building codes;
3. Conduct/update the existing study on buildings' assessment and clarify roles and responsibilities regarding the legalization and approval of constructions.

HFA PRIORITY 5
Strengthen disaster preparedness for effective response at all levels

A National Strategy for Emergency Situations was adopted in 2006, creating the SEM, which was given the role of coordinating the Montenegrin civil protection system. The Law on Protection and Rescue provides the legal background for response to all disasters caused by natural and man-made hazards.

As a follow up to the Law on Protection and Rescue, action plans for 12 hazards were produced at the national level. In addition, the municipalities are currently preparing response plans for the hazards relevant in their territory.

An important legislative gap is that the Law on Protection and Rescue does not mandate the development of contingency plans. As a result, contingency plans are not systematically developed. Nevertheless, a contingency plan for sea pollution was developed by the Ministry of Environment jointly with UNEP.

One of the constraints noted by the assessment mission team is that there is no established mechanism for announcing national emergencies caused by disaster.

In the event of a disaster, the first responding level to protect and rescue the local population from natural and man-made disaster is the local level, as stated in the Law on Local Self-Government. In the event of a disaster, an emergency management team lead by the mayor (which includes a representative of the SEM in a deputy position) is created, and it comprises all relevant authorities and stakeholders (including the Red Cross). The protection services are managed locally and their

equipment and training is provided with municipal funds. It was reported during the capacity assessment interviews that few richer municipalities have an adequate mechanism to respond to emergencies, while most of them have very scarce means.

In case the municipality does not have enough means to respond to the disaster, it can request the Ministry of Interior for support. The Emergency Sector, based in the Ministry of Interior, has local branches, however its capacities at the local level need to be enhanced.

The army and police are often involved in response operations. Nevertheless, this is done on the basis of an ad hoc request, mainly originating at the municipal level. At the central level, there is an increasing effort by the emergency sector to involve the army, which leads to improving coordination in field operations. It also is important to note that there is no civil-military cooperation unit within the army.

Damage assessments are conducted at the local level by a local Committee. A special budget for disaster response is allocated to municipalities and managed by the mayor (between 1–3 percent of the total budget). However, citizens are not compensated in totality. Usually, it is the municipality who decides the amount to be compensated, but usually it does not go beyond 50 percent of the total cost of the damage (regarding construction, this practice covers both legal and illegal construction).

As a result, richer municipalities may provide higher standards for damage and loss compensation. In case the available budget in the municipality is not sufficient to compensate citizens, the central level provides a mechanism to access funds for this purpose.

The major challenges, detected as a result of the recent disaster, were the lack of coordination, the overlapping of mandates, confusion about roles and responsibilities, and the shortage of standard operational procedures. As municipal response plans are being developed, it is hoped that this will address the challenges at local level. However the coordination between national and local levels needs to be improved. Generally, it has to be acknowledged that overall the response mechanism, despite the gaps, has proved to function in the event of a crisis. This is mostly due to the fact that the recent events have not been very severe or geographically extended, and the small dimension of the country allows for smooth communications between institutions. Another tool that will support communication and coordination among the different stakeholders is the creation of the 112 centre.

At the national level, there is a need to establish clear guidelines on how to reach the decision of declaring a national emergency situation. In order to do this, a classification of the emergency situations and alerts is highly recommended. This was also recommended by several of the interviewees.

Bilateral agreements for support, custom lifting and granting fast entry to rescue teams have proved to work well in the latest flood emergencies. However, recent

disasters also showed the necessity to have a clear procurement regulation – a new law on public procurement is currently being drafted.

In terms of cooperation with neighbouring countries, there are some agreements signed. Most of them are signed at the central level, but very few exist between neighbouring municipalities. The international community has expressed their willingness to contribute in order to form a stronger regional approach to crisis response.

All simulations are currently organized by international actors. There is a need to transfer skills to organize simulation in-country – to ensure they are systematically conducted and their results incorporated into legislation, regulating frameworks, action plans, and standard operation procedures, among others. Even the Red Cross, due to lack of funds, is not currently able to conduct further simulations.

Some training is provided by the municipalities to the local civil protection search and rescue teams. As expressed by several interviewees, the training should be offered in a more systematic way and reach out to all the municipal staff. This is a challenge, as at the local level there is no available budget to be dedicated to preparedness for response and response activities. Needs for preparedness and emergency response training have been assessed in the HFA Priority 3 section of this report.

Awareness of the population of disaster preparedness and response is extremely limited. The voluntary system of the Red Cross is trained to provide, among other things, first aid support. As mentioned earlier under HFA Priority 3, some preparedness for response elements have been introduced to sixth grade students, but there is a need to strengthen this course and expand it to DRR.

HFA PRIORITY 5: RECOMMENDATIONS

1. Develop standard operational procedures for all stakeholders involved in disaster response – clarifying roles and responsibilities of all stakeholders;
2. Finalize the set up the operations and communications 112 centre;
3. Finalise and adopt the new Law on Public Procurement;
4. Conduct nationally owned simulations – international entities organizing simulations should increase their capacity transfer approach;
5. Strengthen the coordination response system at the local level, though enhancing skills and budget allocation;
6. Integrate preparedness for response instruments, frameworks and plans into the preparation for recovery;
7. Develop contingency plans.