Country Profile

MOLDOVA

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Disclaimer

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    - **Water Management Department**
    - **GisMeteo portal**

- **Ministry of Information and Communication Technology**
- **Ministry of Regional Development and Construction**
- **Ministry of Education**
- **Ministry of Labour**
- **Ministry of Transport and Road Infrastructure**
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    - **Institute of Scientific Research**
- **Institute of Geology and Seismology of the Academy of Sciences**
- **The State Environmental Inspectorate**
- **General Inspectorate of Police**
- **Border Police**
- **Custom Service**
- **Water Agency "Apele Moldovei":**
    - **Basin Management Agency**
- **Moldsilva**
- **Agency of Geology and Mineral Resources**
- **Agency for Land Relations and Cadastre of the Republic of Moldova**
- **Material Reserves Agency**
- **State Hydro-Meteorological Service**
- **National Centre for Public Health**
- **National Centre of Environment NGO**

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List of Content

Abbreviations

AA	Association Agreement
AGMR	Agency of Geology and Mineral Resources
ALRCRM	Agency for Land Relations and Cadastre of the Republic of Moldova
BSEC	Black Sea Economic Cooperation
CAP	Common Alerting Protocol
CD	Community of Democracies
CE	Council of Europe
CEI	Central European Initiative
CEMC	Crisis Emergency Management Centre
CEP	Civil Emergency Planning
CIS	Commonwealth of Independent States
CP	Civil Protection
CPESS	Civil Protection and Emergency Situations Service of the Ministry of Internal Affairs of Moldova
DC	District of Columbia
DLD	Disaster Loss Data
DM	Disaster Management
DRA	Disaster Risk Assessment
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
EAEC	European Atomic Energy Community
EaP	Eastern Partnership
EAPC	Euro-Atlantic Partnership Council
EADRCC	Euro-Atlantic Disaster Response Coordination Centre
EBRD	European Bank for Reconstruction and Development
ECLAC	Economic Commission for Latin America and the Caribbean
ENPI	European Neighbourhood and Partnership Instrument
EPPO	Environmental Pollution Prevention Office
ERRA	Electronic Regional Risk Atlas
ES	Emergency Situations
EU	European Union

EUFD	EU Floods Directive
EUR-OPA	Council of Europe - European and Mediterranean Major Hazards Agreement
FAO	Food and Agriculture Organization
FH&FRM	Flood Hazard and Flood Risk Mapping
FHM	Flood Hazard Mapping
FRM	Flood Risk Mapping
FRMP	Flood Risk Management Plan
GCTU	General Confederation of Trade Unions
GDP	Gross Domestic Product
GIS	Geographic Information System
GUAM/GUUAM	Organization for Democracy and Economic Development
HNS	Host Nation Support
HNSG	Host Nation Support Guidelines
IAEA	International Atomic Energy Agency
IBRD	International Bank for Reconstruction and Development
ICAO	International Civil Aviation Organization
ICAS	Institutul de Cercetări şi Amenajări Silvice
ICC	International Criminal Court
ICRM	International Committee for Radionuclide Metrology
ICT	Information and Communication Technology
IDA	International Development Association
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
IFRCS	International Federation of the Red Cross and Red Crescent Societies
ILO	International Labour Organization
IMF	International Monetary Fund
IMO	International Maritime Organization
INSARAG	International Search and Rescue Advisory Group
IOC	International Olympic Committee
IOM	International Organization on Migration
IPU	Inter-Parliamentary Union
ISO	International Organization for Standardization
IT	Information Technology

ITU	International Telecommunication Union
ITUC	International Trade Union Confederation
JN	Journalist Network
JRC	Joint Research Centre
MIGA	Multilateral Investment Guarantee Agency
MoA	Ministry of Agriculture
MoC	Ministry of Regional Development and Construction
MoD	Ministry of Defence
MoE	Ministry of Environment
MoEd	Ministry of Education
MoF	Ministry of Finance
MoIA	Ministry of Internal Affairs
MS	Member State
MTEF	Medium-Term Expenditure Framework
NAG	National Advisory Group
NATO	North Atlantic Treaty Organization
NCPH	National Centre of Public Health
NGO	Non-Governmental Organisation
NSDI	National Spatial Data Infrastructure
NUTS	Nomenclature of Territorial Units for Statistics
OIF	Organisation Internationale de la Francophonie
OPCW	Organization for the Prohibition of Chemical Weapons
OSCE	Organization for Security and Co-operation in Europe
PFP	Partnership for Peace
PFRA	Preliminary Flood Risk Assessment
PPP	Public-private partnership
PPRD East 2 Programme	EU-funded Programme for Prevention, Preparedness and Response to Natural and Man-made Disaster in EaP Countries
PuP	Public-public partnership
RBC	River Basin Committee
RBMP	River Basin Management Plan
RM	Republic of Moldova
RSBC	River Sub-Basin Council
SAR	Search and Rescue

SDI	Spatial Data Infrastructure
SELEC	Southeast European Law Enforcement Centre
SHS	State Hydro-meteorological Service
SoP (or SOP)	Standard Operating Procedure
TETRA	Terrestrial Trunked Radio
TTX	Table-Top Exercise
UN	United Nations
UNCTAD	UN Conference on Trade and Development
UNDP	UN Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNHCR	The Office of the United Nations High Commissioner for Refugees
UNIDO	United Nations Industrial Development Organization
UNMIL	United Nations Mission in Liberia
UNMISS	United Nations Operation in the Republic of South Sudan
UNOCI	United Nations Operation in Côte d'Ivoire
UNWTO	UN World Tourism Organisation
UoM	Unit of Management
UPU	Universal Postal Union
USGS	United States Geological Survey
UTC	Coordinated Universal Time
VPN	Virtual Private Network
WCO	World Customs Organisation
WFD	Water Framework Directive
WHO	World Health Organisation
WIPO	World intellectual property organization
WMO	World Meteorological Organisation
WTO	World trade organization

1 Executive Summary

Worldwide natural hazards and man-made disasters are on the rise, often leading to loss of lives, displacement of populations and destructions of costly infrastructures. These disasters can have dramatic negative effects on the economic growth of a country and can critically undermine the region's efforts for sustainable development. It is therefore of the upmost importance that risks of disasters are mitigated and that countries are better prepared to deal with them – individually and collectively.

The Eastern Partnership Flagship Initiative on Prevention, Preparedness and Response to Natural and Man-made Disasters (PPRD East) was launched in 2010 by the European Union to strengthen the countries' resilience, preparedness and response in addressing these challenges. With this regional initiative, the European Union provides the six Eastern Partnership countries (Armenia, Azerbaijan, Belarus, Georgia, Republic of Moldova and Ukraine) with dedicated assistance to enhance legislative, administrative and operational civil protection capacities as well as increase access to information on risk exposure and involvement of stakeholders.

The 5.5 million euro Phase 2 of the PPRD East Programme has commenced in December 2014 and the first year of its implementation has been dedicated to the civil protection capacity building, and to the assessment of the current status of the civil protection and disaster risk management in all six Partner Countries with an aim to assist and support Partner Countries in their approximation to EU acquis communautaire and EU good practise in the filed of civil protection and disaster risk management. The very initial mapping of Partner Countries needs, priorities and interests has been undertaken during the brief initial fact-finding missions undertaken to the Partner Countries in February 2015, to be followed with the detailed assessments done through the in-country missions, questionnaires and desktop analyses in the period April-August 2015.

The following presents the updated draft Country Profile based on information made available to the expert team. It includes an assessment of national follow-up on PPRD East Programme Phase 1 recommendations as well as of the following PPRD East 2 thematic topics:

1. Flood management and approximation to the EU Floods Directive
2. Disaster risk assessment
3. Disaster loss data collection and processing
4. ERRA
5. Inclusion of disaster risk reduction in public spending
6. Host Nation Support
7. EU approach to volunteerism in civil protection

8. Raising awareness about disasters
9. Data and information sharing and INSPIRE Directive

In addition, the civil protection profile, presented in the Electronic Civil Protection Operational Guidebook, developed within the PPRD East Programme Phase 1, has been updated. Each Chapter includes presentation of the legal and institutional framework, current status of practice, findings and recommendations, and the respective road maps with concrete suggestions on activities that should be implemented in the forthcoming period.

Draft Country Profile has been presented, discussed and validated by the National Advisory Group at and after the meeting organised on 27-29 October 2015 in Chisinau, Moldova. The following thematic topics have been selected to be addressed within the PPRD East 2 Programme:

- Flood Risk Management, Disaster Risk Assessment, Disaster Loss Data complemented with ERRA,
- Raising Awareness about Disasters, and
- Host Nation Support.

For the other, in this document presented topics, the PPRD East 2 Programme will assist the Civil Protection and Emergency Situations Service of the Ministry of Internal Affairs of the Republic of Moldova and other national stakeholders in transforming here presented and accepted recommendations and road maps into bankable project proposals. The PPRD East 2 will also assist all national stakeholders in searching for and finding the most suitable additional EU assistance instrument and/or the most suitable external bilateral and/or multilateral funding mechanism.

Basic country information validated on 1 0ctober 2015 by Mr Sergiu Gradinaru, Civil Protection and Emergency Situation Services of the Ministry of Internal Affairs and by the National Advisory Group at the meeting held on 27-27 October 2015.

2 Civil Protection profile (update of the Electronic Civil Protection Operational Guidebook)

2.1 Vulnerability to man-made and disasters caused by natural hazards

Moldova is vulnerable to floods, windstorms, droughts, extreme temperatures, landslides and seismic events. There are no relevant technological-related hazards recorded, but there are a number of man-made hazards that pose further risks in Moldova, including **potential industrial accidents, pollution and nuclear contamination from neighbouring countries**. In 1983 a dam containing a tailings pond burst at the Stebnik potassium plant releasing a large amount of salt solution into the Dniester River near Nikolaev. This took nearly two years to return to normal conditions.

A severe earthquake of magnitude 7.3 struck Chisinau in 1940. The USGS has reported a recent earthquake of magnitude 2.9 in the Ukraine-Romania-Moldova Border Region on February 15, 2005. Historical records of earthquakes, along with the country's location within the seismic zone of Vrancea zone, suggest that the country is vulnerable to earthquake as well as to hydro-meteorological hazards.

In 2008, disastrous floods caused by heavy rains occurred in Moldova resulting in heavy damage to the households and infrastructure adjacent to the Prut and Dniester Rivers. In 2010, floods occurred again, causing 2 deaths and heavy damage to the households and infrastructure mainly on the left bank of the Prut River. Vast agricultural areas serving as income source for hundreds of people are still under the water. In both cases Moldova has asked for and received international assistance (relief items and pumping capacities) through the EU Civil Protection Mechanism and from several EU countries.

2.2 General Country Information

FLAG

Description: three equal vertical bands of blue (hoist side), yellow, and red; emblem in centre of flag is of a Roman eagle of gold outlined in black with a red beak and talons carrying a yellow cross in its beak and a green olive branch in its right talons and a yellow sceptre in its left talons; on its breast is a shield divided horizontally red over blue with a stylized aurochs head, star, rose, and crescent all in black-outlined yellow; based on the colour scheme of the flag of Romania - with which Moldova shares a history and culture - but Moldova's blue band is lighter; the reverse of the flag does not display any coat of arms. ***Note:*** *one of the only three national flags that differ on their obverse and reverse sides - the others are Paraguay and Saudi Arabia.*

Head of State	President Nicolae TIMOFTI (since 23 March 2012)
Head of Government	Prime Minister Valeriu STRELET (since July 2015)
Capital	Chisinau in Romanian (Kishinev in Russian) *note: pronounced KEE-shee-now (KIH-shi-nyev)* Geographic coordinates: 47 00 N, 28 51 E Time difference: UTC+2 (7 hours ahead of Washington, DC during Standard Time) Daylight saving time: +1hr, begins last Sunday in March; ends last Sunday in October
Area	Total: 33,851 sq km; land: 32,891 sq km; water: 960 sq km
Population	3,619,925 (July 2013 est.)
GDP/capita (PPP)	$3,400 (2012 est.)
Membership of International Organisations	BSEC, CD, CE, CEI, CIS, EAEC (observer), EAPC, EBRD, FAO, GCTU, GUAM, IAEA, IBRD, ICAO, ICC (NGOs), ICRM, IDA, IFAD, IFC, IFRCS, ILO, IMF, IMO, Interpol, IOC, IOM, IPU, ISO (correspondent), ITU, ITUC (NGOs), MIGA, OIF, OPCW, OSCE, PFP, SELEC, UN, UNCTAD, UNESCO, UNHCR, UNIDO, Union Latina, UNMIL, UNMISS, UNOCI, UNWTO, UPU, WCO, WHO, WIPO, WMO, WTO
Ethnic groups	Moldovan/Romanian 78.2%, Ukrainian 8.4%, Russian 5.8%, Gagauz 4.4%, Bulgarian 1.9%, other 1.3% (2004 census) *note: internal disputes with ethnic Slavs in the Transnistrian region*
Religions	Eastern Orthodox 98%, Jewish 1.5%, Baptist and other 0.5% (2000)
Climate	Moderate winters, warm summers
Location	Eastern Europe, northeast of Romania
Land boundaries	Total: 1,390 km Border countries: Romania 450 km, Ukraine 940 km
Terrain	Rolling steppe, gradual slope south to Black Sea. Landlocked; well endowed with various sedimentary rocks and minerals including sand, gravel, gypsum, and limestone.
Land use	Arable land: 53.47%; permanent crops: 8.77%; other: 37.75% (2011)
Natural hazards	Hydro-meteorological phenomena (hail storms, early frost onset, droughts, and floods), landslides and seismic hazards (earthquakes).
Environment	Heavy use of agricultural chemicals, including banned pesticides such as DDT, has contaminated soil and groundwater; extensive soil erosion from poor farming methods.
National economy	Moldova remains one of the poorest countries in Europe despite recent progress from its small economic base. With its moderate climate and good farmland, Moldova's economy relies heavily on its agriculture sector, featuring fruits,

vegetables, wine, and tobacco. With few natural energy resources, Moldova imports almost all of its energy supplies from Russia and Ukraine. Moldova's dependence on Russian energy is underscored by an estimated $4.3 billion debt to Russian natural gas supplier Gazprom due largely to unreimbursed natural gas consumption in the separatist Transnistria region. Previous Russian decisions to ban Moldovan wine and agricultural products, coupled with their decision to double the price Moldova paid for Russian natural gas and the large debt continue to hamper economic growth. Moldova also depends heavily on the annual $1 billion in remittances from the estimated one million Moldovans working in Europe and former Soviet Bloc countries. During the global financial crisis in 2009, Moldova experienced a 6% contraction of its GDP, shrinkage due to increased unemployment and decrease in remittances. To stabilize the country, the IMF allocated $186 million to Moldova to cover its immediate budgetary needs in the fall of 2009, and the Moldovan Government agreeing with the IMF to a new program worth $574 million. In 2010, an upturn in the world economy boosted GDP growth to about 7% and inflation to more than 7%. Economic reforms have been slow because of corruption and strong political forces backing government controls. Nevertheless, the government's primary goal of EU integration has resulted in some market-oriented progress. The granting of EU trade preferences has encouraged higher growth rates, but the agreements are unlikely to serve as a panacea, given the extent to which export success depends on higher quality standards and other factors. The economy had modest growth in 2011, expanding by 6.8%. However, in 2012, with the Euro crisis and a devastating drought, Moldova's GDP stalled at an estimated 0.3% growth over 2011. Moldova's economic future remains vulnerable to political uncertainty, weak administrative capacity, vested bureaucratic interests, higher fuel prices and the concerns of foreign investors as well as the presence of an illegal separatist regime in Moldova's Transnistria region.

(Source: https://www.cia.gov/library/publications/the-world-factbook/geos/md.html)

2.3 Map of Moldova

2.4 Form of Government

System description

Moldova is a parliamentary republic. The parliament is the supreme legislative body and elected by the population by general vote. The parliament elects the president, who is also the commander in chief of the armed forces. Upon a proposal from the President, parliament approves the candidature of the prime minister. The prime minister, in turn, proposes for Parliament's approval candidates for members of government.

Administrative divisions and structure

32 districts, 3 municipalities (municipii, singular - municipiul), 1 autonomous territorial unit (unitatea teritoriala autonoma), and 1 territorial unit (unitatea teritoriala)

Raions: Anenii Noi, Basarabeasca, Briceni, Cahul, Cantemir, Calarasi, Causeni, Cimislia, Criuleni, Donduseni, Drochia, Dubasari, Edinet, Falesti, Floresti, Glodeni, Hincesti, Ialoveni, Leova, Nisporeni, Ocnita, Orhei, Rezina, Riscani, Singerei, Soldanesti, Soroca, Stefan-Voda, Straseni, Taraclia, Telenesti, Ungheni

Municipalities: Balti, Bender, Chisinau

Autonomous territorial unit: Gagauzia

Territorial unit: Stinga Nistrului (Transnistria)

(Source: International CEP Handbook 2009: Civil Emergency Planning in the NATO/EAPC Countries.

Available on the Swedish Civil Contingencies Agency's website, www.msbmyndigheten.se; https://www.cia.gov/library/publications/the-world-factbook/geos/md.html).

2.5 National Civil Protection System, Mandate and Organisation

Legal framework

Two fundamental laws regulate the CP system and service:

- The Law 271/1994 "on Civil Protection" that establishes the CP of the Republic of Moldova, in order to protect people and property from the consequences of environmental and disasters caused by natural hazards. The Law establishes principles, rights and obligations of national authorities such as President, Government, Parliament, Ministries, Ministry of Interior, local authorities and citizens. In case of event the CP develops and maintains adequate measures and activities reflected in specific plans and programs. The CP includes: governing bodies, management bodies, the National Network of Surveillance and Laboratory Testing, the condition of the environment and potentially dangerous objects, forces and resources from emergency response, CP training system.
- The Law 93/2007 "on the Civil Protection and Emergency Situations Service" (CPESS) establishes the legal framework, principles, functions, duties and rights of the personnel of the CPESS, as well as the conditions of execution of the service/work in offices.

The state of emergency is regulated by the Law nr. 212 of the 24 June 2004 "On the State of Emergency, Martial Law and War" while the Government Resolution 1076 of 16 November 2010 "On the classification of emergency situations and the collection and presentation of information in the field of population and territory in the event of emergencies." establishes a common methodology for assessing emergency situations, delineate zones of emergency situations, the timely notification of the population, an adequate response, as well as the establishment of order of collection and presentation of information to the population in the event of emergencies.

- Parliament Decision nr. 1318-XII of 3 February 1993 "On the Joining of the Republic of Moldova to certain international conventions";
- Law nr.271-III from 9 November 1994 on civil protection;
- Law nr. 267 din 9 November 1994 on fire protection;
- Law nr. 212 din 24 June 2004 on state of emergency, war and martial law;

- Government Resolution nr. 1340 from 4 December 2001 on the Emergency Situations Commission of the Republic of Moldova;
- Government Resolution nr. 282 from 14 March 2005 on the approval of the training Regulation in the field of civil protection;
- Government Resolution nr.1048 from 6 October 2005 on the approval of the Regulation regarding to the organization of transmissions and notification system in case of danger or the occurrence of a emergency situation;
- Government Resolution nr. 1076 from 16 November 2010 on the classification of emergency situations and accumulation mode and presentation of the information in civil protection area;
- Government Resolution nr. 928 from 8 October 2010 on the approval of the Regulation regarding to organization and performing the state supervision in civil protection field;

Government Resolution nr.979 from 5 December 2013 on the Republic of Moldova Civil protection preparedness measures for 2014.

(Source: PPRD East Programme Phase 1 (PPRD East 1) Technical Report 4 - Strengthening the Eastern Region's Institutional and Legislative Frameworks; Technical Working Paper INITIAL ANALYSIS OF CIVIL PROTECTION CAPACITY OF THE PARTNER COUNTRIES October 2011).

Civil protection/civil defence/civil emergency planning:

System overview, organization and structure

At national level - Overall guidance of Civil protection activities is lays on Government. Government is responsible for defining types and quantities of Civil protection activities. Government conducts leadership in Civil Protection through the Service of Civil Protection and Emergency Situations of the Ministry Internal Affairs.

Moreover, government created Commission on Emergency Situations, which responsible for support activities of state executive organs in emergencies. Prime Minister is head of Commission. Decisions of Commission are mandatory for execution by all legal and private entities.

At regional level - Heads of Civil Protection in districts are leaders of public administration bodies

At local level - Heads of Civil Protection in sites and villages are leaders of public administration bodies.

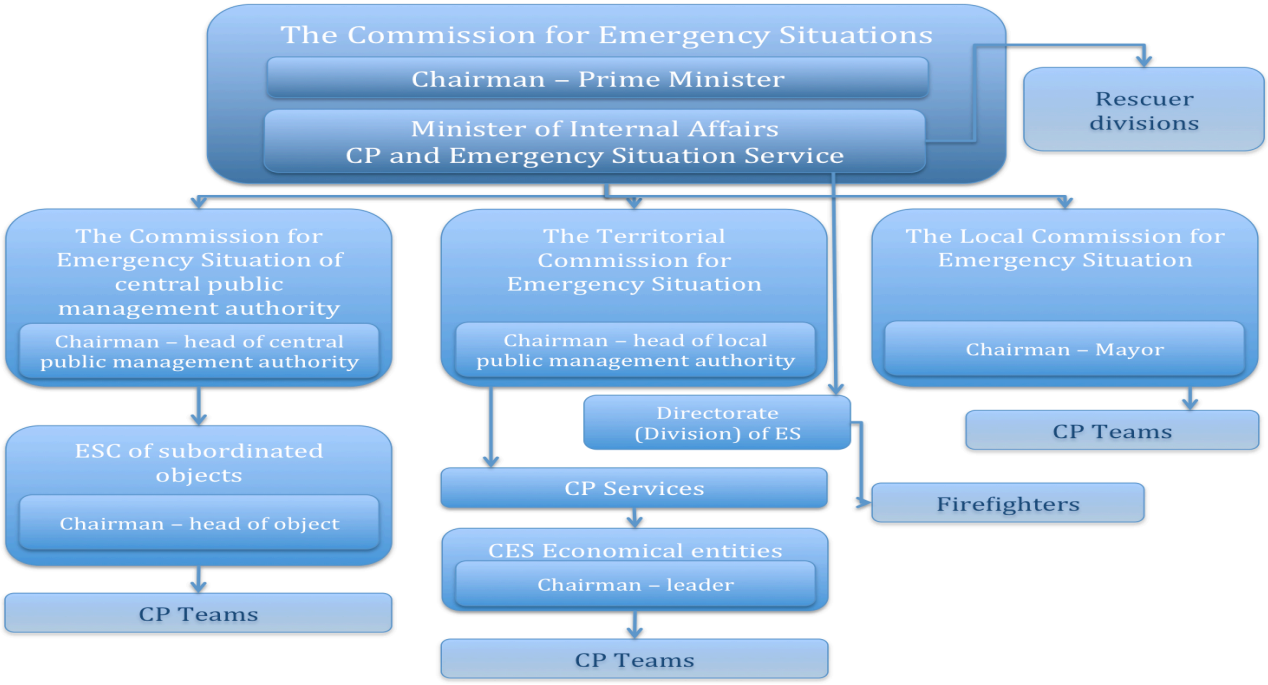
The Service of Civil Protection and Emergency Situations of the Ministry Internal Affairs coordinates activities of ministries, other state executive institutions and public administration bodies on preparedness and emergency response issues.

Civil protection/civil defence/civil emergency planning objectives and tasks	Civil Protection is the system of state measures and activities that conducts in peace and war times with aim to protect population from natural and ecological origin emergencies, incidents, disasters, epizootics and fires. The basic tasks are: • To protect the population and property in the event of emergencies; • To coordinate the activities of ministries, departments, public authorities in the area of civil protection; • To train and prepare the population to be able to cope with disasters; • To carry out emergency response, including search and rescue, in the event of emergencies; • To mitigate the consequences of natural and manmade disasters.
Civil protection/civil defence/civil emergency planning organizational structure	Organizational structure of Civil Protection System include: • Command and control structures; • National Network of Monitoring and Laboratorial Control for Environment and Potentially Dangerous Objects • Detachments and recourses; • Educational and training system. *(Source: PPRD East 1 - Technical Working Paper INITIAL ANALYSIS OF CIVIL PROTECTION CAPACITY OF THE PARTNER COUNTRIES October 2011).*
Civil-military cooperation	Ministry of Defence (MoD) cooperates with CPESS within the framework of the Contingency Plan for Cooperation. This Plan also includes cooperation of CPESS with other parts of the armed forces that, in accordance with the Law "On Civil Protection" and the Decision of the National Commission for Emergency Situations, are currently under the coordination of CPESS. The Plan is designed to coordinate activities in the event of emergencies within the territory of the Republic of Moldova. *(Source: PPRD East 1 Technical Report 4 - Strengthening the Eastern Region's Institutional and Legislative Frameworks)*
External stakeholders	Several donors and international partners support development of DM system in Moldova – UNDP, OSCE, and the World Bank etc. DM issues started to be regularly addressed by the donors only after floods in 2010.
Internal stakeholders	Private sector: All organizations are subject of Civil Protection System. Volunteers: In according to the legislation, volunteer fire-fighting organizations should be created on each enterprise, which has 15 or more workers. NGOs: NGO have the right to participate in the action of CP assistance of the victims. Experts and other persons can establish special community organization

to meet the objective of CP (Law on CP).

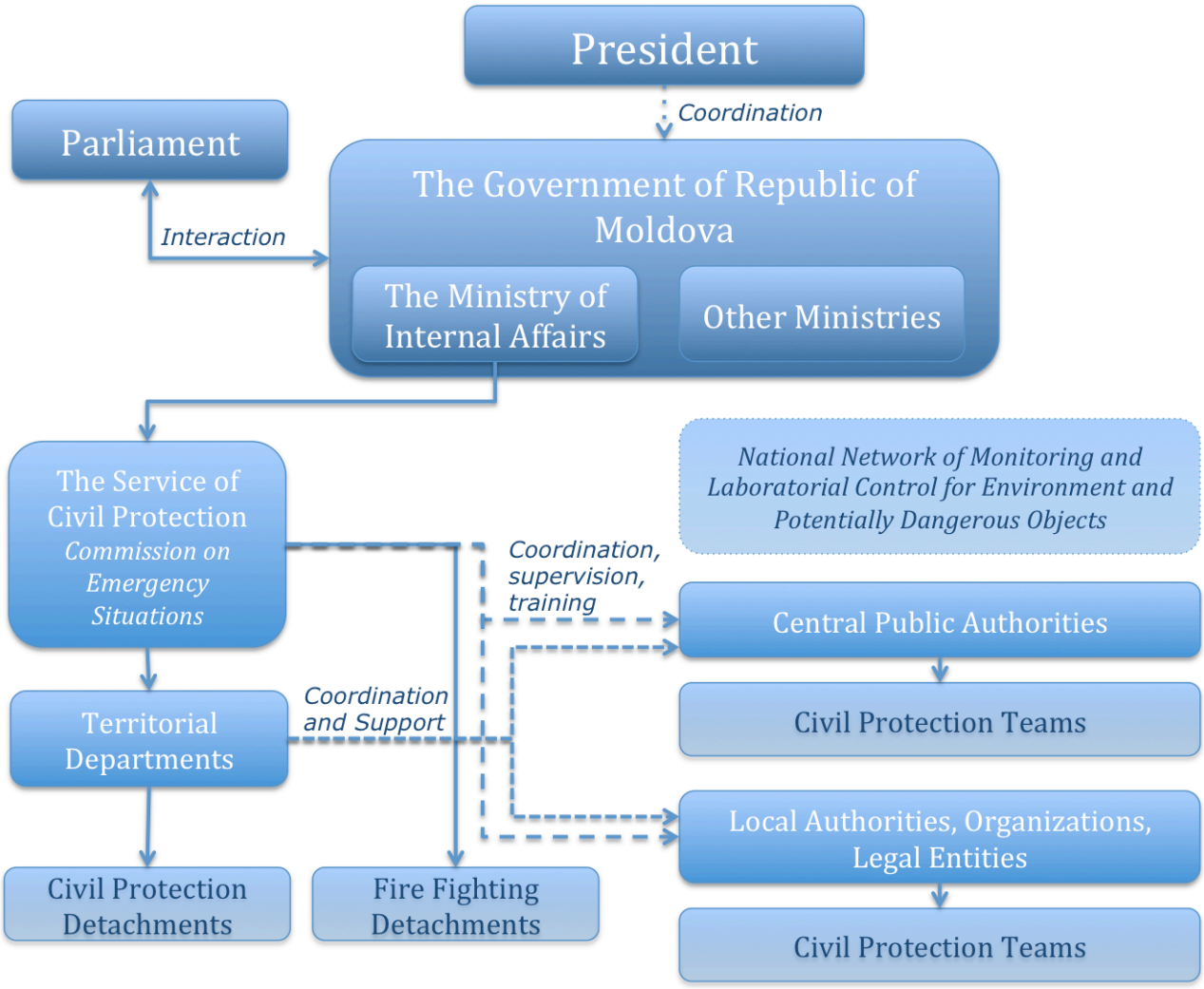
(Source: PPRD East 1 Technical Report 4 - Strengthening the Eastern Region's Institutional and Legislative Frameworks; Technical Working Paper INITIAL ANALYSIS OF CIVIL PROTECTION CAPACITY OF THE PARTNER COUNTRIES October 2011 Civil Protection capacity analysis)

Disaster relief



Available Human and Material Resources

The diagram presented below reflects the available resources in case of state of emergency.



Early warning and communication

Warning about threat or emergency situations is a timely delivery of such information to the central public authorities, civil protection forces, and population.

Warning about the threat or emergency situations is provided by:

- Centralized automated warning systems about threats or emergencies at the national, regional, local and objective levels;
- Use of centralized telecommunication networks, including mobile communication, departmental telecommunications networks and private telecommunications networks in the manner prescribed by legislation of Republic of Moldova, as well as networks of national, regional and local radio and television and other technical means of information

transmission (reflection);

- Automation of the process of the signals and messages about threats or emergencies transmission;
- Operation of automated early detection and warning systems at the highly hazardous facilities.

(Source: Government Regulation nr. 1048 from 06.10.2006 on approval the Regulation on the organization of notification and transmission system in case of danger or occurrence of an emergency situation)

Early warning systems towards professionals

Service of Civil Protection is responsible for reparation and distribution of information on:

- Current, previous emergencies and consequences;
- Threats of emergencies;
- Fire, chemical, radiation safety;
- Medical, biological – safety;
- Engineer protection.

Early warning systems towards the population

Public Authority is responsible for information of population through media. Communication to population during emergency is defined by the Law (Government Resolution 1076 of 16 November 2010 "On the classification of emergency situations and methodologies about information to population and territory in case of emergency situation").

Public information system

Information to the public refers to emergency management phase. (Law "On Civil Protection" Art. 1, 2 and 3: notify the governing bodies and the population of the country and the threat of an emergency situation).

2.6 Operative Information

Operative information is mainly flowing through communication systems of the Ministry of Internal Affairs.

Emergency numbers

In December 2008 the Concept of a United National System of Emergency Response (SNUAU) was presented to the Government. It represents a comprehensive complex of measures developed to upgrade the current communication system in the country and to adjust it to the European system with the introduction of single emergency number 112 for all services; however, due to various reasons, its full implementation is still pending.

Other emergency numbers

901 — Fire and Rescue;

902 — Police;

903 — Ambulance.

2.7 Agreements

Bilateral agreements

Agreement between the Government of Romania and the Government of the Republic of Moldova on cooperation and mutual assistance during disasters, signed on 3 March 2012, Iasi, Romania.

Agreement between the Republic of Moldova and the Republic of Belarus on cooperation in prevention and liquidation of consequences of emergency situations, signed on 20 November 2006, Chisinau, Moldova.

Agreement between the Government of Republic of Moldova and the Cabinet of Ministers of Ukraine on cooperation in the field of industrial accidents, catastrophes, disasters caused by natural hazard and liquidation of their consequences, signed on 4 August 1998, Kiev, Ukraine.

Agreement between the Government of Republic of Moldova and the Government of the Russian Federation on cooperation in CP, prevention of industrial accidents, disasters caused by natural hazard and liquidation of their consequences, signed on 14 February 1995, Chisinau, Moldova.

Multilateral agreements, MOUs, Protocols of cooperation, etc.

Agreement on mutual assistance in case of accidents and other emergencies of the Member States of Commonwealth of Independent States, signed on 30 May 2002, Moscow, Russian Federation.

Agreement on cooperation of CIS Member States during the evacuation of their nationals from third countries in case of emergencies, signed on 12 April 1996, Moscow, Russian Federation.

Agreement on cooperation in prevention and liquidation of consequences of emergency situations of natural and technological nature of the CIS countries signed on 22 January 1993, Minsk, Belarus.

Agreement on the exchange of information on emergencies of natural and technological character, signed on 18 September 2003, Yalta, Russian Federation.

Agreement between the Government of Republic of Moldova and the United Nations on measures to speed up the import, export and transit of humanitarian personnel and assets aid in disaster and emergency situations, signed on 17 September 1999, Chisinau, Republic of Moldova.

Agreement between the Governments of member countries of the Black Sea Economic Cooperation (BSEC) on assistance in liquidation consequences of natural and technological emergencies, signed on 15 April 1998, Sochi, Russian Federation.

Memorandum of Understanding on the Institutional Framework of Disaster Preparedness and Prevention Initiative of the South-Eastern Europe, signed on 24 September 2007, Zagreb, Croatia.

Open Partial Agreement of the Council of Europe / EUR-OPA Major Hazards.

(Source: PPRD East 1 Technical Report 4 - Strengthening the Eastern Region's Institutional and Legislative Frameworks; Technical Working Paper INITIAL ANALYSIS OF CIVIL PROTECTION CAPACITY OF THE PARTNER COUNTRIES October 2011)

2.8 International Assistance

National arrangements on how to receive and deliver international assistance

Legal framework applicable for incoming international assistance is covered by:

- Agreement between the Government of the Republic of Moldova and the United Nations on measures to speed up the import, expert and transit of humanitarian personnel and assets to grant aid in disaster and emergency situations, signed on 17 September 1999, being primarily applicable for UN operations and covering border crossing and customs procedures.
- Bilateral agreements with Austria, Belarus, Bulgaria, Romania, Russia and Ukraine.
- Law nr. 1491 of 28 November 2002 on humanitarian aid offered to Moldova, covering provisions for the entry and distribution of humanitarian assistance, including assistance provided in connection with disasters.
- Government Decision nr. 663 of 3 June 2003 approving the Regulation on humanitarian aid offered to Moldova, stipulating the implementing measures of the law on humanitarian aid under point 3 above.
- Government Decision nr. 653 of 2 June 2003 on the Interdepartmental Commission for Humanitarian Aid setting up the Interdepartmental Commission for Humanitarian Aid to ensure the effective distribution of humanitarian aid and the information channel in between donors and recipients. A list of goods that are prohibited to be transported in Moldova as humanitarian assistance is also annexed to this decision.
- Government decision nr. 1148 of 22 September 2003 on model regulation of the territorial commissions for humanitarian aid, regulating the roles and responsibilities of the territorial (regional) bodies of the Commission for Humanitarian Aid in terms of needs assessment and the distribution of aid.
- Government decision nr. 1076 of 16 November 2010 on emergency situation classification and on collecting and presenting information in case of emergency situations establishing a uniform methodology to assess emergency situations, defining emergency areas and early warning of the populations as well as setting information management

structures for the events of emergencies.

The Civil Protection and Emergency Situations Service of the Ministry of Internal Affairs is responsible to collect, compile and submit information to the Government about any emergency or the imminent threat thereof as well as for all measures to prevent and / or eliminate the consequences of disasters.

The Commission for Humanitarian Aid is the primarily responsible body to decide on the acceptance of international aid, to maintain contact with international donors and to distribute the goods received. Its territorial commissions have a great role in assessing the situation on site and distributing aid locally.

Other bodies that may have an effect on the management and coordination of international assistance are:

- The Ministry of Labour, Social Protection and Family, having a role in the coordination and distribution of international assistance and in needs assessment;
- The Specialized Commission of the Ministry of Health, advising on the import of medicines, medical supplies and devices;
- Emergency Situations Commission.

The overall coordination of disaster management is ensured by the Emergency Situations Commission, organized on different territorial levels and having its members from different public authorities.

As regards the integration of international assistance with the national coordination structures, no legal framework or any standard operating procedures are in place. On the other hand, it is a functioning practice to appoint a liaison officer for the incoming international teams according to the INSARAG Guidelines. There are no pools of experts or any special training. There is a list of persons with experience in disaster management and coordination and who are also English speakers.

Regulations and other particular issues affecting the transport of international assistance

	Road transport of relief / international teams:
Entry into the territory	Specialized border crossing points (e.g. access only for trucks etc.): N/A Hazardous goods and restricted equipment: N/A Animal health restrictions (e.g. Search and Rescue Dogs): **SAR dogs are reportedly falling under the term "humanitarian assistance" as specified in Law nr. 1491 on humanitarian assistance provided to Moldova and therefore the above mentioned provisions concerning expeditious entry apply. They have to be accompanied with veterinary certificates and in case of need; additional examinations cannot be excluded before entry, though this is not common practice.**

	Providing Visa at the border crossing point for relief personnel: **That is possible if there is a Government Decision.**
Circulation in the territory	Daylight driving restrictions: **90 km/h at intercity roads, in some cases according to road signals it can be 110km/h; inside cities - 50 km/h, some sectors according to road signals can be - 80 km/h.** Night driving restrictions: **NO other** Weekend driving bans: **NO other** Season driving bans: **NO other** Technical restrictions of vehicles sizes (height, width and weight) and licenses for vehicles. Roads type and height restrictions (for tunnels or cities): **N/A** Road/motorway tolls: **N/A** Restrictions as regards alcohol consumption while driving: **N/A** Restrictions on driving time (for drivers): **N/A** Possession of International driving license: **N/A** Use of rotating lights: **N/A** *(Source: Section 3 from Road Traffic Regulation of the Republic of Moldova)* Convoy attendance: **Ministry of Internal Affairs can provide escort for international relief teams.**
Facilitation of road transport operations	Civil Protection Contact Point: **Civil Protection and Emergency Situations Service** **Republican Operative Dispatch Centre (24 hours /7 days)** **Tel**: +373 22 73-85-45 **Fax**: +373 22 73-85-69 **International Cooperation Division:** **Tel:** +373 22 73 85 06 **E-mail:** dse@dse.md Competent authority concerning request escorts for civil protection convoys: **Ministry of Internal Affairs**. Competent authority concerning request for exceptions for urgent relief operations: **Ministry of Internal Affairs**
Entry into the territory	**Aerial transport of relief/international teams** International airports (e.g. availability/operational program, capacity/take-off and landing lane length, taxes for parking and handling services, availability of resources for refuelling): **N/A** Hazardous goods and restricted equipment: **N/A**

	Animal health restrictions (e.g. Search and rescue dogs): **N/A**
	Providing Visa at the airport for relief personnel: **N/A**
Facilitation of Customs procedures	Exempt relief goods and equipment from all custom duties, taxes, tariffs or any governmental fees: **Yes** (**if such relief goods were approved as humanitarian aid or if there is a special Government Decision**).
	Exempt relief goods and equipment from all export, transit and import restrictions: **Yes** (**if such relief goods were approved as humanitarian aid or if there is a special Government Decision**).
	Simplify and minimize documentation requirements for export, transit and import: **Yes** (**if such relief goods were approved as humanitarian aid or if there is a special Government Decision**).
	Simplified border crossing procedures are applied according to the Agreement between the Republic of Moldova and the United Nations to speed up the import, export and transit of humanitarian personnel and assets in disaster and emergency situations, which covers UN operations. *The Law nr. 1491 on humanitarian assistance provided to Moldova* stipulates that custom controls are performed in accordance with existing laws, providing clearance for humanitarian aid as priority. Standard forms are reportedly established to facilitate border crossing / immigration and customs procedures for incoming / outgoing relief teams / consignments. Adequate certificates are requested in case of imported medication and SAR dogs.
	Waive or reduce inspection requirements: **N/A**
	Availability of customs outside of business hours: **Yes**
Facilitation of aerial transport operations	Civil Protection Contact Point: **Civil Protection and Emergency Situations Service**
	Competent authority concerning request for rapid grant of landing and over flight permission for relief flights: **N/A**
	Competent authority concerning request for exceptions for urgent relief operations: **N/A**

Regulations and other particular issues affecting the liability of relief personnel

Recognition of relevant professional qualifications of relief personnel (medical personnel, rescuers, engineers, etc.) during the international assistance operation	Yes / No / Other procedure: **Yes** Legal basis: **Agreement between the Republic of Moldova and the United Nations to speed up the import, export and transit of humanitarian personnel and assets in disaster and emergency situations, which covers UN operations.**
Recognition of all necessary certificates and qualifications needed for the conduct of their	Yes / No / Other procedure: **Yes**

work, such as driver's license	Legal basis: **Road Traffic Regulation of the Republic of Moldova**
Any liability for physical injury, adverse health effects or death of any person / property damage on your territory produced with no intention by the relief personnel of the Sending Nation during the relief operations, shall be assumed by:	Requesting Nation: **N/A** or Sending Nation: **N/A** or Individual worker: Legal basis: **N/A**

Regulations and other particular issues regarding the Host Nation Support

Concept implemented into the relevant national legislation in force	Yes / No / Other procedure: **N/A** Legal basis: **Agreement between the Republic of Moldova and the United Nations to speed up the import, export and transit of humanitarian personnel and assets in disaster and emergency situations, which covers UN operations.** **Law nr. 1491 on humanitarian assistance provided to Moldova**
Consist in providing support to the international relief personnel with the followings:	**This kind of support will be provided to the International relief personnel through a Government Decision.**
Entry	(visa, work permit, waiver of taxation on roads, provision of escort, security, clearing of the roads, etc.) Yes / No / Which of them: **N/A** Please provide a brief description of the procedure in place: **N/A**
Communication	(providing to the international relief teams in due time the necessary access to frequencies, bandwidth and satellite use) Yes / No / Which of them: **N/A** Please provide a brief description of the procedure in place: **N/A**
Command and Control	(liaison officers designated for cooperation with the incoming international teams) Yes / No: **N/A** Please provide a brief description of the procedure in place: **N/A**
Coordination	(existence of procedures for other relevant Ministries involvement in relief reception operations, such as Telecommunication, Transport, Health, Police Services, etc.) Yes / No: **N/A** Please provide a brief description of the procedure in place: **N/A**

Security	(appropriate measures in place to keep safe the relief personnel, locations, goods and equipment related to the international assistance) Yes / No / Which of them: **N/A** Please provide a brief description of the procedure in place: **Security is assumed by the host nation, while incoming foreign teams are expected to ensure own safety measure for their operations.**
Operations Area	(base camp provision with adequate conditions for accommodation, food, water, hygiene facilities, storage, electricity, communication technology, vehicles parking, transport, fuel supply, etc.) Yes / No / Which of them: **N/A** Please provide a brief description of the procedure in place: **In principle, Moldova expects disaster relief teams to be self-sufficient for 3-7 days. Yet, it can provide lodging and water free of charge, food, electricity and fuel against payment. Most of the above services and commodities are provided or arranged for through private companies by the Civil Protection and Emergency Situations Service. In case of contracts for value, the cash and bankcards are the accepted payment methods.**
Language	(provision of interpreters for the international teams) Yes / No: **N/A** Please provide a brief description of the procedure in place: **Administrative and office support as well as translation services and inland transport are available free of charge, but no technical or ITC support.**

2.9 List of Relevant Contacts

Civil Protection	Postal address: **MD-2028, mun. Chişinău, str. Gh. Asachi, 69** Telephone number: **+373 22 73 85 45** Fax number: **+ 373 22 73 85 69** E-mail address: **sef.dpc@dse.md** Person of Contact (rank, name, position, organization/structure): **Mr Alexandru Oprea - Head of Civil Protection Directorate**
Emergency / operational	Postal address: **MD-2028, mun. Chişinău, str. Gh. Asachi, 69** Telephone number: **+ 373 22 73 85 51; +373 22 73 85 45** Fax number: **+ 373 22 73 85 69** E-mail address: **do@dse.md , sdo.do@dse.md** Person of Contact (rank, name, position, organization/structure): **Mr Ghenadie Barbu - Head of General Directorate of Planning, Coordination and Operations**
International	Postal address: **MD-2028, mun. Chişinău, str. Gh. Asachi, 69**

cooperation	Telephone number: **+373 22 73 85 06**
	Fax number: **+ 373 22 73 85 69**
	E-mail address: **international@dse.md**
	Person of Contact (rank, name, position, organization/structure): **Ms Svetlana Drobot - Head of International Relations Division**
International assistance	Postal address: **MD-2028, mun. Chişinău, str. Gh. Asachi, 69**
	Telephone number: **+373 22 73 85 06**
	Fax number: **+ 373 22 73 85 69**
	E-mail address: **N/A**
	Person of Contact (rank, name, position, organization/structure): **N/A**

Responder:

PPRD East National Programme Coordinator in the Republic of MOLDOVA - **Mr Sergiu Gradinaru,** Specialist, Operational Division, Civil Protection and Emergency Situation Services of the Ministry of Internal Affairs

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3 Progress made in the adoption of recommendations provided within the PPRD East Programme Phase 1

Key Assessors	
PPRD East 2 Experts	Davide Miozzo
Country Thematic Focal Point	N/A
Chapter validated by	National Advisory Group

3.1 Legal framework

PPRD EAST 1 recommendations	Action taken
Approximation to EU acquis communautaire in the field of DM. The approximation should include on EU directives, regulations and standards. Flood risk management is regulated by the Flood Directive in coordination with the Water Framework Directive; the approximation to Flood Directive should be a guidance for developing a legal framework for flood risk management in Moldova. Prevention, Preparedness and Response to Major Chemical Accidents is regulated by the Seveso Directives (I, II and III). The Seveso III Directive has been recently adapted for accounting of the new EU chemicals classification. The current legal framework in Moldova should be revised towards the approximation of the Seveso Directives. The legislation on civil engineering/construction should adopt EU standards for seismic design of Building Codes (EURO8).	Water and flood management legislation of Moldova has been extensively transformed in the last years and harmonized to several EU directives. The Water Law nr.272 of 23 December 2011, effective from 26/10/2013, partially, though substantially, transposed the following directives: Water Framework Directive n.2000/60/EC of 23 December 2000 (WFD), Urban Waste Water Directive no.91/271/EEC of 21 May 1991, Nitrate Directive no.91/676/EEC of 12 December 1991, Bathing Water Directive no.2006/7/EC of 15 February 2006 and Flood Directive no. 2007/60/EC of 23 October 2007. In addition, Council decision 2014/492/EU, has stipulated the Association Agreement (AA) between Moldova and the EU. The AA foresees that signatory parties shall "*aim at preserving, protecting, improving, and rehabilitating the quality of the environment, protecting human health, sustainable utilisation of natural resources and promoting measures at international level to deal with regional or global environmental problems* […]" (art. 87) in a number of environmental and civil protection key sectors. The AA sets a rigorous roadmap and for Directive 2007/60/EC (EUFD) it foresees: • adoption of national legislation and designation of competent

	authority/authorities (by 2017); • undertaking preliminary flood assessment (by 2018); • preparation of flood hazards maps and flood risks maps (by 2021); • establishment of flood risk management plans (by 2022). Concerning Council Directive 96/82/EC (SEVESO) the roadmap is the following: • adoption of national legislation and designation of competent authority/authorities (by 2018); • establishment of effective coordination mechanisms between relevant authorities (by 2018); • establishment of systems for receiving notifications with information about relevant SEVESO establishments and for reporting on major accidents (by 2021). A roadmap for the inclusion of EUROCODE 8 has been included into national legislation with the promulgation of Government Decision n.933 of 12 November 2014.
Establishment and launching of the National Disaster Risk Reduction Platform as national coordinating and supporting panel/entity for mainstreaming policies and activities for prevention of, preparedness for, response to and recovery from disasters. The Platform aims at ensuring the full implementation of the Hyogo Declaration and of the Hyogo Framework for Action.	The National Platform for DRR hasn't been appointed yet.
Improve the existing legal framework for Early Warning System (Government Regulation 1048 from 06.10.2005) on the basis of the already existing weather forecasting system. An effective EWS needs	Accordingly to CPESS, the enhancement of the national Early Warning System has been inserted in the "CP System Improvement Agenda". CPESS is

a clear legal framework where duties, rights and responsibilities of national and local authorities are clearly established, regulating the flow of information and the level of activation of national and local institutions, national and local services, NGOs and citizens in case of warning.	looking forward to modify the existing Law. Currently, a number of projects are being implemented in this area[1] (some of them are EU funded) and are providing technical assistance in this direction. Results of these projects should be analysed and, their best practices, converted into the Law on EWS.
Establish an unique legal framework for a single emergency number, as Moldova is already undergoing the creation of a single emergency number. Thus, this will allow Moldova citizens to spontaneously identify a single 112 number to call for emergency services across the country.	The adoption of Law n.174 of 25 July 2014 "on approving and operation of the Unique Emergency Call Service 112" created the appropriate legal framework towards the fulfilment of the present recommendation. At the moment, CPESS is implementing the prescription of the Law and developing a number of documents, which will regulate the functioning of the 112 Service. According to the National Emergency Plan elaborated by CPESS (which couldn't be analysed as covered by the State Secrecy), the 112 Service shall be completed in period 2015-2017.
Adopt standards and guidelines for risk and multi-risk assessment, such as the one contained in the "Staff Working Paper on Risk Assessment and Mapping Guidelines for Disaster Management" (EC, 2010). The main aim of this guideline is to improve coherence among the risk assessments at national level in the prevention, preparedness and planning stages. Risk assessments, when carried out at national level, are crucial for enhancing disaster prevention and preparedness activities and contribute significantly to planning and capacity building. More specific, the	By signing the Association Agreement the Republic of Moldova has agreed to rigorously implement risk assessment in a number of areas (notably floods and SEVESO). In this context the first attempt for a more comprehensive approach has been advanced by the CPESS, who has recently issued a non-mandatory *Recommendation for the Elaboration of Disaster Risk Assessment for districts* (detailed information is available in the Disaster Risk Assessment Chapter).

[1] *The ClimaEast initiative provides the framework for the development of many initiatives and collaboration of other projects/donors, including the "Moldova Disaster and Climate Risk Management Project (DCRMP)" which has the aim of strengthening the State Hydro-meteorological Service's ability to forecast severe weather, as well as to improve the capacity of the Government to manage emergencies and coordinate disaster response among local units by establishing the Emergency Command Centre; the "Moldova Disaster and Climate Risk Reduction Project" which aims at contributing to reduce disaster and climate related risks approaching national vulnerability to climate variability. The creation of an informed National Disaster Observatory is also envisaged in this project. Capacity building activities are carried on at both local and central authorities and proper prioritizing process while developing the National DRM Strategy. (http://1067656943.n159491.test.prositehosting.co.uk/wp-content-sec/uploads/2015/04/MD_DonorActivity.pdf)*

risk classification and the terminology should be included in the Governmental Resolution 1076 of 16.11.2010, "On the classification of Emergency Situation and Methodologies about information to population and territory in case of Emergency situation".	
Adopt standard guidelines for the development of the local emergency plan. The emergency plan is very effective measure to increase the preparedness of the CP system, to coordinate the response and eventually to reduce damages of disasters. The emergency plan needs to be developed at local level where most of the actions for prevention, preparedness, response and recovery usually take place. Two international guidelines for local emergency planning can be considered as reference: Flood Emergency Planning - WMO; Awareness and Preparedness for Emergencies at Local Level (APELL - http://www.grida.no/publications/et/ep3/page/2628.aspx) – UNEP.	In accordance to the Law n.93/2007 (Civil Protection and Emergencies), CPESS (art.12) is the competent authority for "*planning, organization, coordination and execution of civil protection measures*". The National Plan (which has not been analysed as covered by State Secrecy) sets guidelines for District and Local plans. Every municipality has evacuation plans for its schools. Exercises are done yearly involving large portions of the population. All municipal plans contain names of duty holders, phone numbers and procedures that each duty holder is envisaged to implement in case of activation. DRR is also thought in schools and addresses the teaching of the correct comportment that citizens need to adopt in case of emergency. The local plans analysed within this assessment seemed very comprehensive and the key persons in charge seemed very acknowledged of their contents.
Improve the legal framework for data and information sharing between administrations at national and international level. Standard Operating Procedures for the exchange of data on risk exposure, vulnerability, flood alerts and forecasts, need to be established. Timely availability of information and data are essential to promptly react in case of emergency; several international and bi-	In addition to what above mentioned, in this context CPESS has been working since 2010 (with additional funding in 2015) under a World Bank Project - "*Disaster and Climate Risk Management Project*"[2] - with the aim of strengthening the State Hydro-meteorological Service's ability to forecast severe weather and improve Moldova's capacity to prepare for and respond to disasters caused by

[2] *http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2015/05/03/090224b082e32675/1_0/Rendered/PDF/Moldova000Disa0additional0financing.pdf*

lateral agreements have been signed by Moldova, however the data and information flow needs to be regulated by Standard Operating Procedures.	natural hazards. To this end, the Project's scope covered a series of activities aimed at technically enhancing public systems and transferring cutting-edge knowledge across three areas - hydro-meteorological services, civil protection and climate smart agriculture. Component B of the Project has, in particular - aimed to strengthen the Republic of Moldova's capacity to manage emergencies and coordinate effectively disaster response actions among various levels of government agencies by establishing and operating a Crisis Emergency Management Centre (CEMC). The CEMC is now fully functional. Some SOPs still need to be developed (as presented in the Host Nation Support Chapter). However, the communication flow has been greatly enhanced. Regarding bi-lateral agreements signed by Moldova the following need to be mentioned: *i) Dniester river Treaty on sustainable management*. The treaty has been signed with Ukraine in 2012 and foresees the strengthening of relations between the two countries including the timely exchange of information for civil protection purposes[3]. The importance of consolidating such initiatives has been reaffirmed during a high-level event on the trans-boundary climate change adaptation strategy held in Kyiv on 23 April 2015. *ii) The Environmental Protection of International River Basins Project,* which overall objective is to improve water quality in the trans-boundary river basins of the wider Black Sea region and Belarus and to develop River Basin Management Plans. The Prut river basin has been selected from Moldova as trans boundary test area between Moldova and Romania[4].

[3] *More information available at: http://www.unece.org/fileadmin/DAM/env/water/activities/Dniester/Dniester-treaty-final-EN-29Nov2012_web.pdf*
[4] *More information available at: http://blacksea-riverbasins.net/en*

3.2 Institutional framework

PPRD EAST 1 recommendations	Action taken
Establish a unified system to systematically assess the risk of all types of manmade and disasters caused by natural hazards. The system should be base on international standards such as the EC Risk Assessment Guidelines. Considering the geographical situation of Moldova and the fact that Moldova has 2 boundary rivers, standardized trans-boundary risk assessment need to be effectively implemented.	Moldova, and in particular CPESS, is currently developing its capacities to conduct disaster risk assessment. At the moment, several projects are mapping, fragmentally, the territory (for further details refer to DRA Chapter). Advancements are being done with regards on mapping risk for the main rivers. A unified DRA system hasn't been developed yet but CPESS has issued a "*Recommendation for the Elaboration of Disaster Risk Assessment for [32] districts".* The Recommendation, although non-mandatory, outlines the content of the disaster risk assessment considering the methodology developed in the PPRD East 1 Programme. In addition, as examined in legal recommendations 1, 5 and 7, Moldova has been actively strengthening its international role. With the signature of the AA (art.109), it has agreed to intensify cooperation with neighbouring countries (in particular Romania as EU Member State) "*in the form of transnational and cross-border programmes, encouraging the participation of regions of the Republic of Moldova in European regional structures and organisations and promoting their economic and institutional development by implementing projects of common interest*"[5]. Specifically, Moldova has actively established cooperation agreements with Ukraine (The agreement between the Moldovan government and the Cabinet of Ministers of Ukraine on cooperation in environmental protection and sustainable development of the Dniester River Basin, 2012*),* with Romania (a number of projects active in the

[5] *Council Decision 2014/492/EU ex art.109*

	three Euroregions on the Romanian-Moldovan boarder[6]). Some of these initiatives directly address the issue of trans boundary river management and communication amidst relevant stakeholders has been reinforced.
Set up a common, easily accessible system for accessing to risk assessment studies and maps at national levels. The Electronic Regional Risk Atlas (ERRA) will be set within the PPRD East Programme and it will be a reference tools for distributing and accessing to risk assessment data. However, the maintenance of the ERRA system and the permanent update of country specific data need to be ensured by the Moldovan authorities/Government.	ERRA platform is also part of the Moldova – EU Association Agreement under the information exchange of risk assessment (part of Article 119), where cooperation to progress with the development of a country-wide DRA is supported as well as the development of ERRA and its effective use at national level. More information about the further development and institutional set-up of ERRA in Moldova is available in the ERRA Chapter.
Systematic collection, archive and utilization of data on disasters loss in standardized format. CPESS has a division for analysing, monitoring and databases. The collection should be standardized accordingly to international good practice (such is, for example, the UNISDR DesInventar methodology), and results should be shared at national and international level.	Disaster Loss Data collection is highly regulated by the current legislation of the Republic of Moldova. The classification of emergency situations and the methodology for collecting and recording disaster loss data are defined by the Government Regulation n.1076 of 16 November 2010 and the Decree of the Chief of Civil Protection and Emergency Situation Service (CPESS) n.139 of 4 September 2012. Systematic collection, archive and utilization of data on disasters loss are standardized accordingly to national regulations. Approximation to international standards is envisaged as declared during the "Regional Workshop on Disaster Loss Data" held in July 2015 in Moldova[7].
Support the establishment of the research and technological transfer programme for multi-hazard risk assessment. Research Centres and Universities	A research and technological transfer programme for multi-hazard risk assessment has not been established yet.

[6] *To the north, the Upper Prut Euroregion, established in 2000, brings together Romanian, Ukrainian and Moldovan territories. At the centre, the Siret-Prut-Nistru Euroregion (2002, RO/MD) is the most active, having undertaken several projects financed by the cross-border cooperation programmes between Romania and Moldova. To the south, the Lower Danube Euroregion (1998) brings together a number of Romanian, Moldovan and Ukrainian districts.*

[7] *The Regional Workshop has been delivered within the PPRD East 2 Programme.*

are source of knowledge and capacity available in the country that could effectively support and drive innovation and technological transfer in the CP/DM system.	The following are initiatives promoted by Moldovan Government to couple the CP/DM system with the scholastic and scientific system: • The Academy of Science of Moldova is active on the exchange of experts in different areas including environment and ICT. On 11 October 2011, Moldova signed a Memorandum of Understanding for the association of Moldova to the EU's Seventh Research Framework Programme (FP7). This granted the full participation of Moldova to the EU research programme. The positive collaboration has been prolonged into the H2020 Programme. Moldova, along with Ukraine, are the only two PPRD East 2 Partner Countries associated to the H2020 Programme [8]. Although no project has specifically tackled the issue of multi-hazard risk mapping, the association to H2020 provides a favourable environment within which to uptake the present recommendation. • In 2013 a guide on the methodology of teaching DRR has been elaborated by the Ministry of Education, CPESS, the Ministry of Internal Affairs and NGOs active in the field. • Ministry of internal Affairs and CPESS requested the inclusion of DRR in the 2015-2016 framework education plan for primary and secondary education (point 1.6 of the framework plan). • The National Training Centre on DRR, in collaboration with active research centres and universities, elaborates training courses for professionals, teachers and adult citizens interested in increasing their overall knowledge. Training is mandatory of managers and deputies of schools,

[8] *H2020 Associated Countries: http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/3cpart/h2020-hi-list-ac_en.pdf*

	universities and for all teachers, which need to participate to at least 1 course each 5 years. • Main Universities in Moldova actively participate to exchange of students with the most important knowledge exchange programmes[9].
Public awareness has to be improved. There is still a lack of effective participation of the public, although this could be addressed through expanding education programmes, which at present target mainly school children.	A specific public awareness and participation strategy doesn't exist at the moment, however the Civil Protection and Emergency Situations Service have developed a project of Strategy for Communication and Prevention of Emergency Situations, which is expected to be approved in October 2015. The Strategy will cover main population groups - pre- and schoolchildren, youth, elderly and disabled people, civil protection volunteers and civil protection professionals. It is interesting to emphasise that thanks to the good collaboration between CPESS and undergraduate students, the latter have requested, through DRR clubs and debate courses, more practical DRR lessons. This request has been up-taken by the Government which has, with the promulgation of the "Educational Code of 2014", promoted the intensification of practical teachings and trainings in the area of DRR.
Expansion of education at University level could represent a good opportunity to encourage the development of a culture of safety and resilience. University level master programme(s) need to be established in specialized fields such as earth science, environmental monitoring, civil protection, disaster risk management, etc.	More needs to be done in this aspect as, for the time being, Universities have activated only optional courses addressing DRR and not a specific curriculum.
Strengthening the capacity of disaster managers and experts to conduct integrated risk assessment and	The National Training Centre on DRR provides professional courses on the mentioned topics.

[9] *Amongst which: DAAD (German Academic Exchange Service), Erasumus Mundus Programme, Tempus Programme.*

to establish and maintain an effective Early Warning System. Train disaster managers and practitioners on risk assessment, hazard and vulnerability assessment, EWS for floods, flash floods and other weather related risks.	The insufficiency of funds isn't permitting, at the moment, to provide highly qualified trainings if not those carried on within the framework of international projects. Trainings, in these cases, unfortunately aren't provided as Training Of Trainers (TOT) and most of the teachings are thus lost in the long run.
Improving the institutional, administrative and technical capacity for the approximation to the EU Directives (such as Flood Directive, Water Management Directive, Seveso Directive and Eurocode). The approximation to the EU Directives and regulations requires actions and both legal and institutional level: the institutional organization and capacity need to be strengthen for the effective approximation/implementation of Directives.	CPESS and other relevant stakeholders are improving legal and institutional framework for the effective implementation of the Association Agreement as stated in legal recommendations 1,5,6 and 7. Nevertheless the improvement of technical capacities still needs to be fully achieved as stated in institutional recommendation 7.
Improve the use of Information, Communication and Telecommunication Technologies (ICT) for analysis and transmission of environmental data and information for emergency management. ICT technologies can improve the access to data and information in standardized formats and ensure the timely availability of information and data during emergency and for warning of the population.	In reference to the enhancement of transmission of environmental data for emergency management, a few initiatives are currently being developed: • Within the framework of the Government Activity Plan for the 2015-2018, a public warning system using "CellBroadcast" technology is being implemented. • At the same time, pilot projects for the installation of public warning and awareness system (electronic sirens) are being implemented and tested. CPESS is at the same time enhancing its ICT capabilities introducing international standards such as: "CAP Protocol", "TETRA" Standard radio-communication system, VPN connexions and other internal communication networks. Concerning the use of ICT technology for analysis of environmental data, reference must be made on the future development and uptake of the ERRA platform as mentioned in institutional recommendation #2. The *Disaster and Climate Risk Management Project* has also provided a number of

	ICT ameliorations amongst which "*automated data are collected, disseminated and integrated with the radar system and properly visualized, resulting in timely warnings for users*"[10].
The communication and coordination between the institutions directly related to disaster prevention represents a relatively well-built system but lacks the systematization. Data are scattered among institutions, some are on paper, and effective distribution and access to data needs to be ensured.	The Ministry of Communication and Technology, working within the framework of the Law on Communication, is ensuring direct communication amidst institutional stakeholders at state level. A e-cloud system has been implemented in order to facilitate sharing of data and is currently running.

3.3 Conclusion

The Moldovan Republic and the institutions involved in disaster risk management have been positively working on the uptake of PPRD East Phase 1 recommendations. The signature of the Association Agreement demonstrates the willingness of CPESS and of the Moldovan Government to develop a framework policy for the approximation of the EU *aquis communitaire*.

The AA establishes a roadmap until 2022 for the implementation of the first articles of the EU Floods Directive, SEVESO Directive, HNS and a number of other civil protection related topics. Only a harmonic effort of CP stakeholders and of legislative bodies will be able to withstand its strict implementation timelines. It is thus important to monitor closely all the system building and policy-making initiatives that are necessary for the achievement of the set goals.

Concerns emerge when addressing the necessity of strengthening technical capacities of personnel and institutions. The scarcity of funds available requires a careful expenditure planning and project implementation, which must take into consideration Training Of Trainers methodologies. Only in this way, the current fragmented support that the international community is providing will be able to reach sustainable results in the Moldavian society. Attention must be paid in avoiding duplication of initiatives and in providing a comprehensive approach to disaster risk management targeted at capacitating key figures and infrastructures in the CP system.

The creation of a National Platform for DRR is thus becoming crucial as it can serve the twofold purpose of (i) creating a working environment for a multi stakeholder solid and long lasting collaboration and (ii) monitoring the national drive towards the accomplishment of the AA and all its predicaments.

[10] *See Annex 2 of "international development association project paper on a proposed additional credit in the amount of sdr1.50 million (us$2.0 million equivalent) to the republic of Moldova for a disaster and climate risk management project additional financing" at http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2015/05/03/090224b082e32675/1_0/Rendered/PDF/Moldova000Disa0additional0financing.pdf*

4 Flood Risk Management and approximation to the EU Floods Directive

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4.1 Legal and institutional framework

Water and flood management legislation of Moldova has been extensively transformed in the last years and harmonized to several EU Directives. The Water Law nr. 272 of 23 December 2011, effective since October 26th 2013, partially, though substantially, transposed the following directives:

1. Water Framework Directive (WFD) no.2000/60/EC of 23 December 2000 (WFD),
2. Urban Waste Water Directive no.91/271/EEC of 21 May 1991,
3. Nitrate Directive no.91/676/EEC of 12 December 1991,
4. Bathing Water Directive no.2006/7/EC of 15 February 2006 and
5. Floods Directive no.2007/60/EC of 23 October 2007.

Specifically, the art. 49 of Water Law 272 provides that flood risk management is regulated by a dedicated sub-law which has been elaborated and approved as Governmental Regulation on Flood Risk Management no.887 of 11 November 2013. The Regulation identifies the Ministry of Environment (MoE) as a responsible body for the implementation of the legal act. The Regulation is substantially in line with the requirements of EUFD for the preparation of Preliminary Flood Risk Assessment (PFRA), Flood Hazard Mapping (FHM) and Flood Risk Mapping (FRM) and Flood Risk Management Plans (FRMPs). It also sets a review and updating process of the plans and a monitoring mechanism for the implementation of the measures. The main discrepancy with EUFD is that the Regulation does not set a time limit for completing PFRA, FHM, FRM, FRMPs.

An important concept introduced by the WFD is the Unit of Management. In Moldova, river basin districts and sub-basins have been determined and adopted with the Government Decision Nr. 775 of 10 April 2013. Hydrographic district basin Committees have been also established (according to Water Law 272) for the Dniester River and Prut, Danube and Black Seas catchments. The President of the Committees is the deputy Ministry of Environment. Local authorities, water companies and other stakeholders could compose Sub District Basin Councils. Moreover, 39 sub-basins have been designed: in this case the authority in charge is the River Sub-Basin Council coordinated by local authorities. No clear mandate and procedures for the functioning of River Basin Committees and River sub-Basin Councils exist, hampering the implementation process especially for the River Basin Committee. However, it must be noted that some river sub-basin councils (i.e. River Bic Council - http://www.riulbic.md/en/index.php) have been activated by adopting a regulation, nominating members and establishing technical working groups.

The institutional framework of Moldova for flood risk management is complex and includes many institutions belonging to two main governmental bodies, namely MoE and Ministry of Internal Affairs (MoIA). Apele Moldova, State Hydro-Meteorological Services, State Enterprise Water Basin Management Authority, State Environmental Inspectorate Department are subordinated structures of the MoE. Moreover, the Institute of Ecology and Geography belongs to MoE and the National Academy of Sciences. The Civil Protection and Emergency Situations (CPESS) of Moldova within MoIA is the leading organization for emergency management.

Apele Moldovei is an agency of the MoE in charge of water management and resource allocation (including abstraction). The Agency implements the state policy in the field of water resources, flood protection and irrigation. Apele Moldovei established the State Enterprise Water Basin Management Authority[11] for the management of water resources, coordination of water permits, the population of the water cadastre, monitoring of water use and for contributing to the development of environmental information system of MoE (www.gismeliu-gov.md and http://www.dbga.md/siga.html).

The State Hydro-Meteorological Service (SHS) is an institution subordinated to the MoE, which is functioning according to the Law on Hydro-Meteorological Activity in the Republic of Moldova, No. 401 from 3 April 2003, adopted by the Government of the Republic of Moldova.[12] The Service is responsible for hydrological and meteorological monitoring through the automatic and manned ground station and radar network. SHS provides weather forecasts for the entire Moldova and hydrological forecasts for main river basins.

The State Environmental Inspectorate of the Ministry of Environment[13] is responsible for field control, monitoring, mapping and delineation of river basins, inventory of river basins, inventory of industrial facilities, monitoring of dams in coordination with Apele Moldovei.

The Institute of Ecology and Geography of the Academy of Sciences of Moldova and MoE is a scientific institution that provides technical and scientific support and training on: geo-ecological disasters, implementation of environmental and natural resources' Geographical Informational System, meteorology, climatology and agro-meteorology.

CPESS is a service within the MoIA and its mandate and function focus on disaster preparedness, response and emergency management. CPESS coordinates the activities of national and local agencies and authorities, inform local authorities of emergency situations, organizes training for paramilitary, non-military and rescue for emergency response, develops educational programmes for the public, drafts normative acts and civil protection plans to be submitted to the Parliament, coordinates research activities related with civil protection. The recently established National Centre for Managing Emergency Situations is located within CPESS and headed by CPESS. It acts as a coordination body of the political and technical levels for emergency management and disaster preparedness and representatives of all relevant ministries and stakeholders compose it.

[11] *http://www.dbga.md/#*
[12] *http://www.meteo.md/newen/administraciaen.htm*
[13] *www.inseco.gov.md*

4.2 Current status of practices and area of excellence

The legal and institutional framework of flood risk management and approximation to EU Floods Directive is summarized in the previous paragraph, however there are relevant actions on flood management regarding the articles of EUFD, namely Unit of Management, Flood Hazard and Risk Assessment and Flood Risk Management Plan that are worth a more detailed description.

4.2.1 Units of Management

Law determines Hydrographic Basin District Committees and sub-basin councils. However, their functioning is at very early stage especially for the two River Basin Committees (Dniester and Prut, Danube and Black Seas catchments). The Swiss Agency for Development and Cooperation and the Austrian Development Agency are supporting MoE in order to establish an institutional connection between River Basin Committees and River Sub-Basin Councils and to reform Apele Moldovei by establishing a dedicated department for the management of the two river basin districts.

Flood management in international river basins needs to be regulated by ad-hoc agreements. The Republic of Moldova has signed two international agreements for water resources management in trans-national river basin:

- Agreement between Moldova and Romania on cooperation for the protection and sustainable use of waters of Prut and Danube;
- Agreement between the Republic of Moldova and the Cabinet of Ministers of Ukraine on cooperation in environmental protection and sustainable development of the Dniester River Basin, 2012.

4.2.2 Flood Hazard and Risk Assessment

MoE, with the financial support of the European Investment Bank, is implementing the Programme "Management and Technical Assistance Support to Moldova Flood Protection". The Programme has the objective to develop a master and investment plan for flood protection. As part of the Programme, the technical assistance has been tendered with the aim of:

1. preparing Preliminary Flood Risk Assessment for Moldova,
2. elaborating hazard and risk maps for the main rivers,
3. identifying flood risk management measures,
4. preparing a GIS-based river basin information platform,
5. providing capacity building for MoE and subordinated structures on hydraulic and risk modelling.

Beta Studio and HR Wallingford implement the Programme, it is in the closure phase and hazard and risk maps for main rivers have been developed.

During PPRD East Phase 1, a nation-wide flood hazard and risk mapping at NUTS2 level has been developed by applying the methodology developed by PPRD East and based on a 4-level risk assessment (compliant with EU Guidelines). The results are available to registered end users on the ERRA platform.

Furthermore, within the PPRD East 1, the beneficiary countries including Moldova received training on the use of the MIKE 11 software. The software can be of help in the development of the flood hazard maps with the right quality standards. PPRD East 1 committed to buy MIKE 11 licenses for the Partner Countries but never did. PPRD East 2 is willing to fulfil this commitment, but is necessary to consult the Partner Countries if the boundary conditions have changed and if they still need the software and for what purpose. PPRD East Phase 2 asked also to evaluate open software codes that nowadays exist, as an alternative option to the licensed ones. At the time of writing this report, this option is still under consideration by MoE and CPESS.

4.2.3 Flood Risk Management Plan (FRMP)

The EUFD prescribes to elaborate FRMPs for each unit of management based on the flood risk assessment outcomes. FRMPs should include structural and non-structural measures for flood risk mitigation including early warning and emergency plans. No such integrated plan exists today in Moldova. However, there are few actions toward this direction that should be mentioned here:

- According to WFD and EUFD, FRMPs should be part of the River Basin Management Plans (RBMPs). RBMPs have been elaborated for the Dniester and Prut basins and for some sub-basins (i.e.: Bic). More specifically:
    - Dniester's RBMP has been prepared by MoE, the Institute of Ecology and Geography, SHS, Ministry of Health and Millennium Challenge Foundation. It contains a chapter on flood management mostly focused on the identification of flood protection infrastructures. The Ministry has not approved the RBMP yet.
    - Prut's RBMP has been elaborated under EPIRB Programme[14] in collaboration with the Institute of Ecology and Geography.
- Disaster and Civil Protection Plans are adopted at local, territorial and state level. They contain information on measures for preparedness and emergency response, and a list of response units (fire fighters, volunteers et c.). CPESS is the national coordination authority and monitors the update of the plans every five years. The Disaster and Civil Protection Plans are very heterogeneous at local level.
- Early Warning System. CPESS is the responsible authority for alerting the population, while SHS provides operational meteorological and hydrological forecasts to all relevant authorities and to the public. Though SHS has strengthened its operational capacity in the last years, hydrological forecasts are still based on out-dated empirical models, while no operational hydrological modelling system is in place[15] and forecasts for flash floods are not provided yet.

4.3 Findings and Recommendations

NEED OF IMPROVEMENT CLASSIFICATION: HIGH, MODERATE, LOW

[14] *http://blacksea-riverbasins.net*

[15] *The Flash Flood Guidance System has been implemented and the products are currently provided by Turkish Meteorological Service*

1 – Transposition of EUFD into national law and improvement of institutional capacity: HIGH

As already mentioned, the legal framework of Moldova is substantially in line with the requirements of EUFD, however it does not set a clear time framework for the implementation of each step of the directive (PFRA, FHM, FRM, FRMP). Moreover, the institutional framework and the knowledge of organizations and agencies do not reflect the virtuous legal framework in place. Currently, none of the existing technical institutions/agency/departments have received the mandate nor have the full capacity to conduct flood risk assessments and coordinate the preparation of flood risk management plans. Despite the good legal framework, the implementation of the requirements of EUFD in Moldova is at an early stage.

It is recommended to modify the current regulation on flood risk management by including the deadlines for the implementation of PFRA, FHM, FRM, FRMP*. It is also recommended to strengthen the institutional capacity to implement the requirements of the EUFD by clarifying roles, functions and responsibilities of the River Basin Committees and the subordinated structures of MoE (Apele Moldovei, SHS). The mandate of conducting* PFRA, FHM, FRM, FRMP *to appropriate institutions should be as well assigned through a consistent legal act.*

2 – Units of management: MODERATE

The Units of Management are established by the Law according to Water Framework Directive. The River Basin Committees are not fully operational, even if some good examples of River Sub–Basin Council are already in place (for example Bic river). There is also a need to facilitate the establishment of trans-boundary River Basin Councils with Ukraine and Romania.

It is recommended to develop a draft regulation for the functioning of River Basin Committees and River Sub-Basins Council and to promote the creation of multi-national River Basin Councils in collaboration with Romania and Ukraine for flood management in trans-boundary catchments.

3 – Preliminary Flood Risk Assessment: MODERATE

Preliminary Flood Risk Assessment (PFRA) has been conducted by Beta Studio and HR Wallingford for the entire Moldavian territory under the Programme "Management and Technical Assistance Support to Moldova Flood Protection". However, PFRA covers only the main rivers network and there is no clear criterion for the selection of the risk-prone areas.

It is recommended to develop a common set of methodologies and techniques (historical flood data collection, criteria to define past relevant floods, etc.) for PFRA as required by EUFD and to identify the Areas with Potential Significant Flood Risk starting from what has been already developed by MoE. Secondly, it is recommended to implement a training/capacity building programme dedicated to the national institutions that will receive the mandate for conducting PFRA.

4 – Flood Hazard and Flood Risk Maps: HIGH

The situation of Flood Hazard and Risk Mapping is similar to PFRA. FHMs and FRMs have been prepared by Beta Studio and HR Wallingford for the main rivers of Moldova under the Programme "Management and

Technical Assistance Support to Moldova Flood Protection". FHMs and FRMs have been developed with state-of-the-art modelling suites, however there is a need to develop and adopt a methodology that will ensure a homogeneous elaboration of FHMs and FRMs in the whole country.

It is recommended to develop and adopt a common methodology for FHMs and FRMs *based on the experience gained during the implementation of* the *Programme "Management and Technical Assistance Support to Moldova Flood Protection" and utilizing the Member States' Good Practice. Secondly, it is recommended to implement a training/capacity building programme dedicated to national institutions and stakeholders that will have the mandate for conducting flood hazard mapping and flood risk mapping in the whole country.*

5 – Flood Risk Management Plans (FRMP): HIGH

Currently there are no FRMPs operating in the country and there is a need to identify structural and non-structural measures for flood risk reduction and mitigation according to the indication of the EUFD. FRMPs need to be integrated with RBMPs and, specifically, with the ones already developed for Dniester and Prut rivers and some sub-basins. FRMPs need also to include an early warning system and to integrate local, territorial and state disaster and civil protection plans.

It is recommended to develop FRMPs for all the Units of Management of the country and to integrate them with the RBMPs as required by both WFD and EUFD. It is further recommended to establish a control mechanism to periodically check-up the effective development and implementation of the FRMPs.

6 – Data sharing: HIGH

In order to foster the information exchange on flood hazard and risk mapping between the institutions and to promote the utilization of risk information for decision making and public awareness, it would be beneficial to establish a connection among the different geoportals already in place in Moldova, namely: the Environmental Information System of MoE (www.gismediu.gov.md), the national Geoportal of the Agency for Land Relations and Cadastre of the Republic of Moldova ALRCRM (www.geoportal.md), the Electronic Regional Risk Atlas (ERRA) platform and the Disaster Emergency Information System of CPESS.

It is recommended to connect the existing environmental and disaster information systems and to develop and adopt an inter-institutional agreement to facilitate the exchange of information between line-ministries.

4.4 Road Map

Topic	Recommendation	Who	How	When
EUFD transposition	Include the time limit of implementation of requirements of EUFD into national	MoE (promoter)	Modify the Governmental Regulation on Flood Risk Management n.	By the end 2016

	legislation		887 of 11 November 2013 by including time limit for the implementation of the requirements of the EU flood Directive	
Institutional framework	Institutional building	MoE (coordinator) and other stakeholders	Develop regulations that clarify the role, responsibility and functions of River Basin Committee (RBM), River Sub-Basin Council (RSBC) and MoE subordinated structure for the implementation of Regulation 887. RBD and RSBC should be transformed from consultation bodies to decision making authorities	Start mid 2016- end by end 2016
Institutional framework	Institutional building	MoE (coordinator) and other stakeholders	Adopt the new regulations for RBD, RSBC and MoE subordinated Structures	By the end of 2017
Units of management	River Basin Committee and River Sub-Basin Council for flood management	MoE and CPESS	Support the full functioning of River Basin Committee for Flood Risk Management.	Start end 2016 – end by mid 2018
Units of management	Establishing an international unit	MoE	Putting into operation the	Start early 2016 – end by end 2016

	of management (or a coordination platform for national units of management) in collaboration with Romania and Ukraine		existing collaboration agreements with Romania and Ukraine (pending on the agreement ratification from Ukraine)	
Preliminary Flood Risk Assessment, Hazard and Risk Mapping and Flood Risk Management Plan	Develop methodological guidelines complying with EUFD requirements from Articles 4 - 7	MoE, SHS, Apele Moldova, CPESS	Establish a working group including all the stakeholders for the development of the guidelines on PRA, H&RM and FRMP	By mid 2016
Preliminary Flood Risk Assessment, Hazard and Risk Mapping and Flood Risk Management Plan	Develop methodological guidelines complying with EUFD requirements from Articles 4 - 7	Working group on PFRA, H&RM and FRMP (MoE, SHS, Apele Moldova, CPESS)	Develop a set of guidelines for Preliminary Risk Assessment, Hazard and Risk Mapping and Flood Risk Management Plan based on existing guidance and MS's good practices	Start mid 2016 – end by end 2016
Preliminary Flood Risk Assessment	Capacity building	MoE, SHS, Apele Moldova, CPESS	Implementation of a training/capacity building program for Preliminary Risk Assessment	2017
Preliminary Flood Risk Assessment	Survey and maps drafting	MoE and its subordinated Structures, River Basin Committee and River sub-basin Councils	Complete the existing PRA by applying the developed methodologies for PFRA to the entire countries	2017
Flood Hazard and	Capacity building	MoE, SHS, Apele	Design and	Start mid 2016 –

Risk Maps		Moldova, CPESS	develop of a capacity building programme for Flood Hazard and Risk Assessment based on the guidelines developed	end by end 2016
Flood Hazard and Risk Maps	Capacity building	MoE, SHS, Apele Moldova, CPESS	Implementation of a training/capacity building programme for flood hazard and risk mapping	Start mid 2017- end by end 2017
Flood Hazard and Risk Maps	Maps drafting	MoE and its subordinated Structures, River Basin Committee and River Sub-Basin Councils	Complete the existing H&RM by applying the developed methodologies for H&RM to the entire countries	By end 2019
Flood Risk Management Plans	Capacity building	MoE, SHS, Apele Moldova, CPESS	Design and develop of a capacity building programme for the elaboration of Flood Risk Management Plan based on the guidelines developed	Start early 2019 – end by mid 2019
Flood Risk Management Plans	Capacity building	MoE, SHS, Apele Moldova, CPESS	Implementation of a training/capacity building program for the preparation of Flood Risk Management Plans	Start mid 2019 – end by end 2019
Flood Risk Management	Develop, adopt and implement	MoE and its subordinated	Develop, adopt and implement	Start end 2019 end by end 2020 -

Plans	FRMP according to the EUFD prescriptions (Art. 7)	Structures, River Basin Committee and River sub-basin Councils	Flood Risk Management Plan for the entire country starting from already existing River Basin Management Plan and according to the developed guidelines	
Flood Risk Management Plans	Enhancement of the observational network and hydrological forecast capacity	SHS	Purchase, installation and calibration of automated stations. Conduct a capacity building program for improving hydrological forecasts	By end 2022
Data Sharing	Open access to flood-related data for public and institutions	MoE, SHS, Apele Moldova, ALRCRM, CPESS	Connect existing geographical information systems (National geoportal of ALRCRM, Environmental Information System of MoE, Disaster Emergency Information System of CPESS and ERRA).	Start mid 2016-end Mid 2017
Data Sharing	Open access to flood-related data for public and institutions	MoE, SHS, Apele Moldova, ALRCRM, CPESS	Develop and adopt procedures for data exchange among national and local authorities.	Start mid 2016-end by end 2017

5 Disaster Risk Assessment (DRA)

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5.1 Legal and institutional framework

Disaster risk assessment is one of the priorities set out by the Association Agenda of the Chapter on Civil Protection of the EU-Association Agreement of Moldova (Title IV, chapter 22, articles 117-121). Specifically, under the Area of Exchange of Information (art 119), the Association Agenda sets the following priority: *"Cooperation to progress with the development of a country-wide disaster risk assessment and mapping, and support the development of the Electronic Regional Risk Atlas (ERRA) and ensure its effective use at national level*". Thus, Disaster Risk (DRA) Assessment is considered by Moldova as one of the priorities for the development of the national disaster risk management system.

The current legal framework of Moldova does not specifically address disaster risk assessment and, actually, the concept of "disaster risk" does not appear in the legislation where the term emergency situation is used. DRA is currently regulated by provisions of the sectorial legislations (i.e. regulation on Flood Risk Management). The first attempt for a more comprehensive approach, has been done by the Civil Protection and Emergency Situation Service (CPESS), who have recently issued a non-mandatory *Recommendation*[16] – hereinafter *"Recommendation"*. The *"Recommendation"* outlines the content of the disaster risk assessment; it considers the methodology developed PPRD East 1, though it is mostly based on the analysis of historical disasters rather than a complete disaster risk assessment. The *"Recommendation"* takes stock of existing civil protection plan at local, territorial and state level, where a brief assessment of potential consequences of emergency situations exists. Both these planning documents - *"Recommendation"* and civil Protection plans- are focus on emergency assessment for contingency planning.

DRA inherently involves several institutions/organizations, each of them competent in one or more aspect of different disaster perils. The situation in Moldova reflects this general consideration and the institutions competent for each hazard type can be summarized as it follows:

- Landslide: State Enterprise "Hydrogeological Expedition", Agency of Geology and Mineral Resources of MoE, CPESS
- Flood and climate related risk: Ministry of Environment[17] and its subordinated structures

[16] *Analizei situațiilor excepționale posibile la nivel de raion, municipiu, UTA Găgăuzia și impactul asupra populației, economiei și mediului ambiant" -Analysis of Possible Emergency Situation at the level of District, Municipalities, UTA Găgăuzia (autonomous territory) and the impact on population, economy and environment. The recommendation covers 32 districts, 2 municipality and one UTA Găgăuzia*

[17] *Consult the Chapter on Flood Risk Management and approximation to EU Flood Directive for a complete review of legal and institutional framework in this field*

- Earthquakes: Institute of Geology and Seismology of the National Academy of Science, CPESS
- Droughts, heavy rain, hail, fire in plantations: Ministry of Agriculture (MoA) and Institute of Scientific Research of MoA, CPESS
- Forest fire: Moldsilva, Forest Research and Management Institute of MoE, CPESS
- Epidemic and diseases: National Centre of Public Health (NCPH) of the Ministry of Health

Though the legislation does not assign the coordination of DRA to any specific institution, CPESS is recognized by other stakeholders as the authority that should have this role.

5.2 Current status of practices and area of excellence

The risk assessment regarding floods have been already detailed in the chapter analysing the EUFD implementation. As a general conclusion, Moldova has a clear legal framework in line with the requirements of EU Floods Directive, but there is a lack of institutional capacity for proper and effective implementation. Flood hazard and risk mapping is under development for the main rivers of Moldova.

CPESS is coordinating several activities related to Disaster Risk Assessment. Among others, the more relevant is the elaboration of the "*Recommendation"* and its implementation in 32 districts. The "*Recommendation"* defines, for the first time, the concept of *risk assessment* in a normative act of Moldova; furthermore, it introduces the methodology for elaborating risk assessment at district level. The "*Recommendation"* is in line with ISO 31000 standard on risk management[18], and the proposed risk assessment methodology takes stocks of the methodology developed under PPRD East 1; specifically, according to the "*Recommendation"*, risk assessment needs to include a description of historical situation, a risk evaluation matrix (mostly based on past disasters) and maps on floods and seismic hazard. The risk assessment is for internal use and not for the public.

CPESS is coordinating several activities related to Disaster Risk Assessment. Among others, the more relevant is the elaboration of the "*Recommendation"* approved by CPESS and currently in the implementation phase. Furthermore, CPESS is currently developing the *Strategy for Disaster Risk Management* in Moldova -2016-2026, the Strategy" will define, for the first time, the concept of *risk assessment* in a normative act of Moldova.

The *"Recommendation"* introduces the methodology for elaborating risk assessment at district level. The "*Recommendation"* is in line with ISO 31000 standard on risk management [19], and the proposed risk assessment methodology takes stocks of the methodology developed under PPRD East phase 1; specifically, according to the "*Recommendation"*, risk assessment needs to include: - a description of historical situation, a risk evaluation matrix (mostly based on past disasters) and maps on floods and seismic hazard. The results of the risk assessment will be shared among relevant public authorities and will be used by Civil Protection territorial services.

Institute of Geology and Seismology (Institutul de Geologie si Seismologie) of the National Academy of Science conducts research and provides services in the field of seismic risk. The Institute is responsible for

[18] *The standard addresses the entire management system that supports the design, implementation, maintenance and improvement of risk management processes.*
[19] *The standard addresses the entire management system that supports the design, implementation, maintenance and improvement of risk management processes.*

the seismic monitoring system composed by 6 automatic stations. Data are collected and registered in digital databases and used for statistical analysis and risk assessment (approximately 150 earthquakes per year are registered while the more severe occurred in 1940, 1977, 1986 and 1990).

The Institute has developed a methodology for seismic zonation and has elaborated maps for the entire Moldova. The methodology has been published in the scientific literature. The seismic zonation maps have been adopted by the Ministry of Regional Development and Construction and are used for the determination of the construction criteria.

The Institute has also elaborated micro-seismic zonation maps for tree main cities including Chisinau. Furthermore, it has signed an agreement with the Ministry of Regional Development and Construction for the extension of micro-zonation to all major cities in Moldova. The micro-zonation maps contain information on seismic risk. The risk is represented with a relative risk index over four levels and it is computed as a combination of seismic hazard maps, building stock and population density. It must be underlined that the risk mapping is conducted on the base of contracts with Ministry of Regional Development and Construction, who has the final responsibility for adopting the maps.

Ministry of Regional Development and Construction (MoC) is a user of risk mapping. As reported above, the Institute of Geology and Seismology of the National Academy of Science has elaborated seismic zonation maps under a contract with MoC. Maps have been approved by the Governmental decision and are currently used for the authorization of new constructions. The Law on Urban Planning includes important elements on how to consider disasters risk information into land use planning. For example, flood protection zones must be included in urban plans. However, it is not clear how the zone has been identified, most probably they represent the historically inundated area.

Ministry of Agriculture (MoA) is involved into the assessment of damages of weather related disasters (hail, cold wave, droughts) to agriculture production and livestocks. MoA operationally collects information and data on disasters damages to agriculture.

As the Ministry of Environment (MoE) is the competent authority for the implementation of the EU Floods Directive in Moldova, it is responsible for hazard and flood risk mapping. A detailed description on flood risk management is reported in the EUFD Chapter.

MoE has developed and approved the Republic of Moldova's Climate Change Adaptation Strategy by 2020 (*Decision no. 1009 of 10 December 2014, Chisinau, On approving the Republic of Moldova's Climate Change Adaptation Strategy by 2020 and of the Action Plan for its implementation*) and an Action Plan for its implementation aiming at assuring that the social and economic development of the Republic of Moldova becomes resilient to climate change impacts in the future. Among the actions envisaged by the Strategy, the following are relevant for Disaster Risk Assessment: the regular monitoring and evaluation of the climate change impact, related social and economic vulnerability, and the establishment of a mechanism for managing/disseminating the information on climate risks and disasters.

MoE is also the competent authority for developing legislation on forest management. However, the autonomous entity Moldsilva operates through 10-year management plan developed by its own Institute for Forestry Research and Management (Institutul de Cercetări şi Amenajări Silvice (ICAS)), reflecting current institutional shortcomings in forest management. ICAS main activities focus on: forest resources, forest regeneration, afforestation, protected forest areas, forest legislation, and non-wood forest products.

Although the institute collects several data and information on forest status, vegetation coverage, etc., forest fire risk assessment is not systematically developed.

The Agency for Geology and Mineral Resources (AGMR) is the central administrative authority subordinated to MoE, specialized in research, accounting, regulation and control of the use of mineral resources. AGMR maintains the State Fund of information on subsoil where data on landslides for Moldova are registered. The data on landslides are obtained from the mapping work carried out by SE "Hydrogeological Expedition of Moldova". About 0.9 million Lei are allocated annually for monitoring landslides. Landslides are classified with a methodology that was developed by the Institute for Geology and Hydrogeology at the time of the Soviet Union: landslides are classified according to their status (active/no-active), age and technical characteristic. Each landslide is identified on a map (non-digital) and has a dedicated assessment report. The archive of landslides contains data from 1948. AGMR maintains and updates a digital database containing the list of landslides and their location expressed as latitude and longitude; there is no information on potential impacts of landslides.

The National Centre of Public Health (NCPH) of the Ministry of Health collects information on impact of disasters on human health, to the healthcare system and to the medical facilities. All data and information are registered in a dedicated database for diseases and outbreaks. NCPH, in collaboration with the World Health Organization (WHO), has assessed the safety of Moldovan hospitals by applying the hospital safety index and by elaborating a National Plan for improving the resilience of hospitals. The Plan have been developed on the base of simplified risk assessment for main disasters such as earthquake, diseases, droughts, heat waves, chemical releases, etc.

5.3 Findings and Recommendations

NEED OF IMPROVEMENT CLASSIFICATION: HIGH, MODERATE, LOW

1 – Transposition of DRA EU Guidelines into legislative framework: HIGH

There is no regulative act specifically addressing disaster risk assessment in Moldova and, actually, the concept of “disaster risk” does not appear in the legislation where the term “emergency situation” is exclusively used. Furthermore, DRA is mostly regulated by provisions of the sectorial legislations (i.e. regulation on Flood Risk Management), while a first attempt of introducing DRA into national legislation has been done by CPESS with the “Recommendation for the Elaboration of Disaster Risk Assessment for districts”.

It is recommended to modify the current legal framework by introducing the concept of disaster risk and by defining a mechanism for systematic disaster risk assessment based on *DRA EU guidelines, on Member State good practices and by taking stock of the “Recommendation”.*

2 – Institutional setup: HIGH

CPESS is generally recognized as coordinating body of disaster risk assessment, however many organizations conduct activities for DRA without a clear distribution of responsibilities and definition of

"who does what" for each specific hazard. Moreover, since DRA needs the expertise, the data and the information from several national and local organizations, the coordination among institutions should be strengthened.

It is recommended to clarify role and responsibilities of each institution, appoint CPESS as a coordinating national authority for DRA and identify institutions responsible for hazard and risk mapping for each hazard type or at least for the most relevant disaster risks. Furthermore, it is recommended to set up a mechanism of effective coordination among different institutions both at national and local level.

3 – Hazard mapping: MODERATE

The current situation of hazard mapping in Moldova is very diverse among hazard types. A comprehensive hazard mapping is being conducted for floods; seismic hazard mapping is at advanced status though it needs to be update. The "*Recommendation"* introduces a homogeneous framework for disaster risk assessment, however the methodology proposed is mostly based on the analysis of historical event and not on a comprehensive disaster risk assessment in line with DRA EU Guidelines and MSs good practices. Furthermore, the implementation of the "*Recommendation"* is at very early stage, mostly because there is a gap in capacity of institutions to conduct multi-hazard assessment with internationally recognized tools and methodologies. Finally, a tremendous valuable amount of information on hazard mapping for landslide is on paper and there is an urgent need to digitalize the information.

A recommendation would be to improve the current methodology contained in the "Recommendation" *in order to account for full disaster risk assessment and to be fully in line with DRA EU Guidelines and MSs good practices. The methodologies should address multi-hazard mapping for both contingency and strategic planning and account for trans-boundary issues. It is further recommended to strengthen the capacity of institutions/organizations to conduct hazard assessment for each specific hazard. Finally, digitalization of data on landslides is an urgent need as well as to build a digital cadastre of historical landslides*.

4 – Risk Mapping: HIGH

Similarly to hazard mapping, risk mapping is at very different stage for each hazard type, with flood and seismic risk mapping being at a good level of development. A multi-hazard methodology for risk assessment is reported in the "*Recommendation",* however it is mostly developed for contingency planning and its implementation is at early stage. Moreover, disaster risk mapping is also currently available at district scale or coarser from the PPRD East 1 and a proper methodology for elaborating maps at aggregated scales and with little information on exposure has been developed. PPRD East 1 developed an aggregated multi-risk indicator that is generally good for an initial scoping study with the aim of refocusing on the most risky areas. When proper mitigation measures need to be developed, this methodology is of partial utility as stated in the official documentation of the Programme.

It is recommended to further elaborate the methodology contained in the "Recommendation" *in line with DRA EU Guidelines and MSs good practice in order to include a multi-hazard risk assessment methodology that is appropriate for different purposes, e.g., strategic plans, emergency plans, contingency plans etc. It is further recommended to strengthen the capacity of institutions/organizations to conduct hazard assessment for each specific hazard type.*

5 – Data Sharing: MODERATE

Moldova has a good understanding of the utility of data sharing for public awareness to disasters and inter-institutional information exchange. In order to further facilitate the exchange information among institutions on hazard and risk mapping and to promote their utilization for decision making and for increasing the public awareness to disaster risk, it would be beneficial to establish a connection among the different geoportals present in Moldova, namely: the Environmental information System of MoE (www.gismediu.gov.md), the national geoportal of the Agency for Land Relations and Cadastre of the republic of Moldova ALRCRM (www.geoportal.md), the Electronic Regional Risk Atlas ERRA and the Disaster Emergency Information System of CPESS.

It is recommended to connect existing environmental and disaster information systems and to develop and adopt an inter-institutional procedure that facilitates the exchange of information among line-ministries.

5.4 Road Map

Topic	Recommendation	Who	How	When
EU approximation into DRA national law	Modification of current legal framework	CPESS (coordinator working group)	Establish a multi-stakeholders working group on DRA legal and institutional framework	2016
EU approximation into DRA national law	Modification of current legal framework	Working group on DRA legal and institutional framework	Draft a proposal for introducing the concept of disaster risk into the Legal Framework of Moldova and for defining a mechanism of systematic disaster risk assessment in the country	Start early 2016-end by end 2016
Include DRA into Disaster Risk Management Strategy of Moldova 2016-2026	Modification of current legal framework	Working group on DRA Legal and Institutional framework	Clarify and introduce EU terminology for disaster risk assessment and management. Include systematic	2016

			Disaster Risk Assessment into Strategy and into the action plan for the implementation of the strategy	
Institutional setup	Official nomination of coordinators for DRA for each hazard	Working group on DRA legal and institutional framework	Elaboration of a proposal for assigning responsibilities to different institutions	2016
Hazard mapping	Methodology	CPESS (coordinator of working group)	Establish a multi-stakeholders working group on Disaster Hazard and Risk Mapping	by mid 2016
Hazard mapping	Methodology	Working Group on Disaster Hazard and Risk Mapping	Further elaboration of the methodology for hazard assessment contained in the *"Recommendation"* in order to be fully in line with DRA EU Guidelines and MSs good practices.	Start mid 2016 -end by end 2016
Hazard mapping	Digitalization of landslide map	Agency of Geology and Mineral Resources (AGMR) of MoE	Digitalization of data on landslides	Start mid 2016 – end by end 2017
Risk Mapping	Development of multi-risk and multi-purpose methodologies to comply with EU guidelines	Working Group on Disaster Hazard and Risk Mapping	Further elaboration of the methodology for disaster risk assessment contained in *"Recommendation"* in order to be in	Start mid 2016 -end by end 2016

			line with DRA EU Guideline, MSs good practices and to include a multi-hazard risk assessment for different purposes: e.g., strategic plans, emergency plans, contingency plans etc.	
Hazard and Risk mapping	Capacity development	CPESS (coordinator)	Design and develop a capacity building program for national and local institutions on disaster hazard and risk mapping	Start end 2016 – end by early 2017
Hazard and Risk mapping	Capacity development	CPESS (coordinator)	Implement the capacity building program for improving the capacity of National and local authorities of conducting hazard and risk assessment for each specific disaster type.	Start early 2017- end by mid 2017
Hazard and Risk mapping	Elaborate maps	CPESS (coordinator)	Elaborate hazard and risk maps by implementing the *"Recommendation"* in the entire country and applying the new multi-risk multi-purpose methodology	Start mid 2017 – end by mid 2019

			developed	
Data Sharing	Improve accessibility to Disaster risk data	CPESS and ALRCRM (coordinators), MoE, SHS, Apele Moldova, MoldSilva, AGMR, National Institute of Geology and Seismology and other relevant authorities	Connect existing geographical information systems (National geoportal of ALRCRM, Environmental Information System of MoE, Disaster Emergency Information System of CPESS and ERRA).	Start mid 2016 – end by mid 2017
Data Sharing	Improve accessibility to Disaster risk data	CPESS and ALRCRM (coordinators), MoE, SHS, Apele Moldova, MoldSilva, AGMR, N Institute of Geology and Seismology and other relevant authorities	Develop and adopt procedures for data exchange among national and local authorities.	Start mid 2016- end by end 2017

6 Disaster Loss Data Collection and Processing

Key Assessors	
PPRD East 2 Experts	Marco Massabò Tatiana Bedrina
Country Thematic Focal Point	Alexandr Tatarov
Chapter validated by	Alexandr Tatarov National Advisory Group

6.1 Legal and institutional framework

Disaster Loss Data collection is highly regulated by the current legislation of the Republic of Moldova.

The classification of emergency situations and the methodology for collecting and recording disaster loss data are defined by the Government Regulation n.1076 of 16 November 2010 and the Decree of the Chief of Civil Protection and Emergency Situation Service (CPESS) n.139 of 4 September 2012.

The Government Regulation n.1076 of 2010 abolishes the former legislation (i.e.. Government Decision No. 347 of 25 November 2003) and assigns the responsibility of coordinating the collection and recording of data on emergency situations to CPESS and its territorial structures. The Regulation defines a specific classification of different types of emergency situations (natural, technological, biological-social), their levels (asset, local, territorial, national, trans-boundary). It further defines the procedures for the collection and transmission of data by ministries to CPESS. The classification adopted is based on the Klassificator system of CIS (Commonwealth of Independent States) - Resolution No16 of 15 August 2002. All this information is used for the compensation of consequences and disaster recovery.

The Decree of the Chief of CPESS n.139 of 4 September 2012 operationally adopts the Regulation n.1076 and defines the methodology for data collection, transmission and reporting. It further specifies a set of standard reports to be used by local commissions for data collection.

6.2 Current status of practices and area of excellence

The chief authority on emergency situations is CPESS[20] and its responsibilities on DLD collection activities are:

- Coordinate and implement the collection, recording, storage, processing and exchange of information on an emergency, submitted by the central public management administration and local public management administrations;
- Present information to the Government about an emergency situation and its extent (asset, local, territorial, national, and trans boundary) and actions taken for the elimination of its consequences;
- Maintain statistical records on emergencies.

[20] *http://www.dse.md/*

The data collection procedure is based on the establishment, according to Governmental Regulation n. 1076 of November 16th 2010, of an ad-hoc commission when an emergency situation occurs. The commission is composed by the representatives of ministries and public administrations defined by the Governmental Regulation n. 1340 of December 04th 2001 on Commission on Emergency Situations of the Republic of Moldova and by Government Regulation n. 1076; the member of the Commission are responsible for the assessment of the consequences to their respective sector of competence (i.e., the Ministry for Agriculture is in charge for the assessment of damages and losses to crops and livestock). Depending on the size of the emergency situation, the ad-hoc Commission can be established at national, territorial and local level. The Commission transmits all data to CPESS on paper forms by using the standard reporting schema defined by the Decree of the Chief of CPESS n. 139 (eight different reporting schemas have been adopted for sundry disaster types).

CPESS records all data into a single electronic database and transmits a statistical summary every three months to the National Bureau of Statistics. Furthermore, a summary of aggregated statistics is transmitted by CPESS to CIS countries.

CPESS has developed the IT platform GISCUIT for supporting the recording of data on emergency situation, GISCUIT also supports the spatial visualization of data on GIS environment and the generation of simple disaster statistics in table formats. The Planning and Analysis Division of CPESS registers the data on the base of the reports received by the Commissions. CPESS is currently exploring the possibility to develop an IT platform for supporting the electronic registration of disaster data by CPESS local structures or by the Commissions.

The current database contains electronic data from 2013 while CPESS has an archive of historical data in hard copy and digital form since 1997.

6.3 Findings and Recommendations

NEED OF IMPROVEMENT CLASSIFICATION: HIGH, MODERATE, LOW

1 – Adapt current legislation and operational procedures to enable the sharing of loss data at European and International level: HIGH

The current legal and institutional framework of Moldova ensures an operational and systematic collection and recording of disaster losses. However, the classification of hazards and loss indicators differs from the minimum requirements of EU and the international standards and does not fully enable the share of disaster loss data at international level.

It is recommended to include in the current legislation and operational procedures the requirements of the Guidance for recording and sharing disaster damage and loss data *(JRC, 2015[21]). Specifically it is recommended to adopt the Extension 2 of the recommendations (Extension 2: data for specific events, for a*

[21] *Guidance for recording and sharing disaster damage and loss data – Towards the development of operational indicators to translate the Sendai Framework into action: EU expert working group on disaster damage and loss data; European Commission, Joint Research Centre, Institute for the Protection and the Security of the Citizen, 2015, ISBN 978-92-79-47452-1, ISSN 1831-9424*

specific hazard, damage and loss per NUTS2/NUTS3 and Unit of Management (UoM), by economic sector and by owner and by status of ownership, i.e., who bears the losses).

2 – Develop and adopt a unified methodology for assessing economic losses from disasters: HIGH

The indicators for affected elements (material consequences) of disasters are clearly defined by current legislation and operational procedures, however there is a lack of a unified methodological approach for collecting and recording the associated economic losses as well as for indirect economic losses for different sectors. Ministry of Agriculture uses ECLAC methodology but without operational guidelines.

It is recommended to develop and adopt in current legislation a methodology for multi-sectoral economic assessment of disaster losses. Furthermore it is recommended to develop and implement capacity building programme for national and local institutions on the use of the methodology.

3-Digitalization of historical data on disaster losses: MODERATE

Historical records of disaster impacts and losses have a tremendous value and can highly improve disaster risk assessment of the country. Historical data are currently in paper format and owned by different administrations.

It is recommended to set up a framework for the collection and digitalization of historical data on disaster losses; it is suggested that the temporal coverage of data should be at least the last 30 years.

4 - Handling of uncertainty: MODERATE

Uncertainties are inherent in every step of the disaster loss data analysis. It would be surely beneficial to adopt an international standard-based evaluation of the uncertainty in every step of the loss data collection and reporting, adopting – as an example - MAXO or NUSAP techniques (see JRC recommendations, 2014[22]). This uncertainty evaluation should be stored and recorded with the final validated version of the data.

It is recommended to legally establish a shared methodology to estimate uncertainty and improve the quality control of data.

6 - Full development of an advanced IT system: HIGH

The existing database and system for recording disaster loss data is currently being updated. However, three main directions and functionalities of further development of IT system are needed:

1-support the electronic registration of disaster data by local structures (CPESS is planning to develop the existing system in this direction),

2-support the processing and spatial analysis of disaster loss data,

3-support the automatic share of data with national (i.e. the Agency for Land Relations and Cadastre of Republic of Moldova), regional and international institutions and stakeholders.

[22] *Current status and best practices for Disaster Loss Data recording in EU Member States - A comprehensive overview of current practice in the EU Member States: De Groeve T., K.Poljansek, D.Ehrlich, C.Corbane; European Commission, Joint Research Centre, Institute for the Protection and the Security of the Citizen, 2014, ISBN 978-92-79-43549-2*

It is recommended to adopt or develop an advanced IT system that can fully address the three main aforementioned functionalities. ERRA, and the possibility of enhancing its functionality for the recording and analysis of loss data, could help the process. Secondly, the system could benefit of further information sharing with the other EaP Countries and international institutions. Furthermore, it is recommended to develop and implement capacity building actions for target users of the platform.

6) Encouraging PuP and PPP: MODERATE

The participation of all stakeholders in refining the requirements of loss database ensures ownership and enhance the utility, hence the future utilization, of disaster loss data. Public-public partnership (PuP) and Public Private Partnership (PPP) should be further encouraged and the role and utility of loss data should be discussed across Governmental departments, including emergency management, urban planning, and Government budget, and across all Governmental scales and participative governance fora (local to national). The main requirements of disaster loss databases should reflect the public and private needs across sectors.

It is recommended to increase the engagement of the private and public sectors into the process of data collection, recording and sharing.

7) Information sharing: HIGH

Data are shared by CPESS on official requests while regular reports on aggregate statistics are published on-line and transmitted to CIS countries. However, the access to data by stakeholders needs to be facilitated and enhanced.

It is recommended to develop and adopt a data sharing policy to facilitate the cooperation between national and international institutions, organizations and general. ERRA platform can be the technological support for the implementation of such a policy framework.

6.4 Road Map

Topic	Recommendation	Who	How	When
Legislation	Adapt current legislation and operational procedures to enable the sharing of loss data at European and International level	CPESS and all stakeholders	Establish a working group led by CPESS for drafting the update of current legislation/regulation	Start early 2016 – end 2017
Methodology	Develop and adopt a unified	CPESS and all stakeholders	Establish a multi-stakeholder working	Start mid 2016 - end 2017

	methodology for assessing economic losses from disaster		group led by CPESS for the elaboration of the methodology. Provide training and capacity building to national and local authorities	
Digitalization of historical data	Digitalization of historical data on disaster losses	CPESS (coordinator)	Collection and recording of historical data on disaster losses	By 2017
Uncertainty assessment	Develop a shared methodology to uncertainty assessment	CPESS and all stakeholders	Working group on Uncertainty assessment led by CPESS	Start 2017 - End 2018
IT system	Full development of an advanced IT system	CPESS	Further development of national IT system or ERRA platform for supporting the collection, recording, analysis and sharing of loss data. Provide training and capacity building to national and local authorities	Start mid-2016- end 2018
Public/Public and Public/Private Partnership	Enhance the engagement of various actors in DLD	CPESS (coordinator)	Consultations between different stakeholders	2016
Data sharing	Open DLD to public and institutions through ERRA	CPESS (coordinator)	Working group for the developing of data sharing policy framework on disaster loss data	Start mid 2016-end 2018

7 Inclusion of Disaster Risk Reduction in Public Spending

Key Assessors	
PPRD East 2 Expert	Antonín Petr
Country Thematic Focal Point	N/A
Chapter validated by	Sergiu Gradinaru National Advisory Group

7.1 Legal and institutional framework

The budget legislation framework is based on the Law of the Republic of Moldova No. 181 from 25 July 2014 "About public finance and budget and tax responsibility". This Law determines the general legal basis in the field of public finance, in particular establishes budget and tax principles and rules; determines components of the national public budget and regulates the inter-budget relations; regulates the budget calendar and general procedures of budget process and differentiates competence and responsibility in the field of public finance.

This Law also defines Reserve and Government Intervention Funds for financing urgent expenses that could not be foreseen and for financing emergency expenses related to disaster management, in the case of epidemics and other emergencies. The reserve and intervention funds should not exceed 2 per cent of the total national budget.

The funding of civil protection (CP) of Republic of Moldova is governed by the Law No. 271-XIII from 9 November 1994 "On Civil Protection" which provides, *inter alia*, a very clear division of funding responsibilities:

a) in the Republic as a whole and in its territorial-administrative units – from state and local budgets, amounts are centrally allocated to the Civil Protection and Emergency Situations Service of the Ministry of Internal Affairs;

b) in Ministries, other authorities and public institutions – from the state budget, amounts are centrally allocated to the Civil Protection and Emergency Situations Service of the Ministry of Internal Affairs, as well as from its centralized and reserve fund.

c) in economic entities – at the expenses of the economic entities.

7.2 Current status of practices and area of excellence

The PPRD East 2 team met during its assessment mission in Republic of Moldova representatives of various institutions who provided a clear description of the budget planning at various levels – central level – Ministry of Finance (MoF); ministerial level – Civil Protection and Emergency Situations Service, Ministry of Regional Development and Construction, Ministry of Information and Communication Technology, Ministry of Education and Ministry of Environment; agency level - State Hydro-meteorological Service, Water Agency "Apele Moldovei" and district level – Ialoveni rayon.

The budget planning starts from mid-term planning of budget expenditures (3 years) – Medium-Term Expenditure Framework (MTEF) which is based on financial sectoral strategies that are revised every year. This work is coordinated by Inter-ministerial Strategic Planning Committee. When MTEF is approved, the planning continues with annual budget planning for fiscal year. The structure of the state budget does not allow identification of individual prevention, preparedness and response expenditures.

The Civil Protection and Emergency Situations Service (CPESS) undertakes its own budget planning following the 3-year financial sectoral strategy plan, however the actual available funds are limited and cover only salaries of staff and operational cost of the CP organisations but do not provide sufficient financial means for disaster risk reduction (DRR) and disaster risk management (DRM) expenditures, trainings and modernisation of equipment, therefore the CPESS tries to get extra funds to cover this cost through external projects.

Other Ministries and agencies active in DRR and DRM confirmed similar situation. They follow the same budget planning process described above, coordinate own plans of activities at the Inter-ministerial Strategic Planning Committee, however the available funds cover only the mandatory cost (salaries, etc.) and there is not enough for development, upgrades of technologies, equipment, etc. They try to cover the cost of necessary maintenance of existing systems and minimum development from external resources (EU, UN projects, etc.).

7.3 Findings and Recommendations

The findings of the PPRD East 2 assessment mission to Moldova, which was focused on inclusion of DRR in public spending, conclude that besides the lack of financial resources for DRR and DRM, the existing legal and institutional framework provides a sound and solid base for budget planning for civil protection and disaster risk management. The system, which was improved recently, is built on the existing solid legal and institutional framework for budget planning and for civil protection and disaster risk management. This provides good potential for the country to meet the Sendai Framework for Disaster Risk Reduction 2015 - 2030, priority 2 – “Strengthening disaster risk governance to manage disaster risk”.

However, the existing system and structure of the budget programmes do not allow sufficiently detailed insight into financial aspects of all individual DRR and DRM related actions, particularly when it involves actions which are less obviously related to DRR and DRM.

It is caused by the lack of existing methodologies for allocating, tracking and registering of all DRR and DRM actions in the budget system at both levels – central and local. Therefore, it is not possible to report exact amounts invested to prevention, preparedness and response, as well as, reconstruction and rehabilitation measures by the various national and local stakeholders.

The ability to clearly identify, record and consequently to evaluate all expenditures within the DRR/DRM at national and local level would significantly help better planning and better use of the available financial resources what is even more important when the funds are limited.

In addition, it would also allow comparison of the real DRR/DRM expenditures against the disaster loss data. This comparison will help to prove that well planned investments into DRR/DRM significantly decrease the impact of disasters on population, environment, economy, infrastructure and cultural heritage, thus equally

decrease the human and economic losses, i.e. saving money for response activities and liquidation of disaster consequences.

As per Sendai Framework for Disaster Risk Reduction 2015 – 2030, an additional accent is placed on "Investing in disaster risk reduction for resilience" (priority 3), more particularly on "promotion of the integration of disaster risk reduction considerations and measures in financial and fiscal instruments".

In order to address the above-identified issues the PPRD East 2 recommends the following:

- to revise and if not sufficient, to enhance the national institutional CP/DRM framework in order to provide/create adequate capacity for development and implementation of the DRR/DRM budget allocation tracking system;
- to develop and implement a methodology for the DRR/DRM budget allocation tracking and recording system across the national system and replicate it at the local level. As a part of the methodology, establish a DRR/DRM "marker" to flag those investments for which the outcome is not explicitly DRR/DRM but which through implementation will contribute to reduce/mitigate disaster risk;
- to develop and implement a methodology for evaluation of the DRR/DRM expenditures that give simple quantifiable indicators showing fiscal impact of the DRR/DRM;
- to create and deliver trainings on the new methodologies for officials from financial units from all relevant national institutions dealing with DRR/DRM measures directly or indirectly.

7.4 Road Map

The road map proposes the prioritization of the recommendations, timeframe for their implementations and responsibilities of involved interlocutors.

Activity 1.1 - Workshop to introduce and discuss the concept of the DRR budget allocation tracking and recording system

Responsibility: shared responsibility of the CPESS, MoF and PPRD East 2 Programme

Timeframe: by April 2016

Support: all national interlocutors active in DRR/DRM

Activity 1.2 - Development of the methodology for the DRR budget allocation, tracking and recording system

Responsibility: shared responsibility of the MoF and CPESS

Timeframe: by October 2016

Support: PPRD East 2 Programme

Activity 1.3 – Development of the methodology for evaluation of the DRR expenditures

Responsibility: shared responsibility of the MoF and CPESS

Timeframe: by March 2017

Support: PPRD East 2 Programme

Activity 1.4 - Development of the training curriculum on the new methodologies

Responsibility: PPRD East 2 Programme

Timeframe: by June 2017

Support: MoF and CPESS

Activity 1.5 - Finalisation of the training programme preparation

Responsibility: PPRD East 2 Programme

Timeframe: by September 2017

Support: MoF and CPESS

Activity 1.6 – Drafting and endorsement of a legal document to institutionalise the new system for the DRR budget allocation tracking and recording system

Responsibility: MoF and CPESS

Timeframe: by December 2017

Support: PPRD East 2 Programme

Activity 1.7 – Delivery of the training on the new methodologies

Responsibility: shared responsibility of the CPESS and PPRD East 2 Programme

Timeframe: by January 2018

Support: MoF

Activity 1.8 – Implementation of the new methodologies for the DRR budget allocation tracking and recording system and for evaluation of the DRR expenditures

Responsibility: shared responsibility of the MoF and CPESS

Timeframe: by June 2018

Support: all national interlocutors active in DRR/DRM

8 Host Nation Support

Key Assessors	
PPRD East 2 Expert	Phil Langdale Michael Elmquist
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8.1 Legal and institutional framework

The National Action Plan for the implementation of the RM-EU Association Agreement 2014-2016 (chapter 22, article 117), approved by the Government Decision nr. 808 from 7 October 2014 specifies the requirement to promote the adoption and implementation of EU Guidelines on Host Nation Support by quarter 4 of 2016[23].

Numerous other aspects of host nation support are covered within the following pieces of legislation:

- Agreement between the Government of the Republic of Moldova and the United Nations, signed on 17 September 1999, on measures to speed up the import, export and transit of humanitarian personnel and assets to grant aid in disaster and emergency situations being primarily applicable for UN operations and covering border crossing and customs procedures.
- Bilateral agreements with Austria, Belarus, Bulgaria, Romania, Russia and Ukraine.
- Law nr. 1491 of 28 November 2002 on humanitarian aid offered to Moldova, covering provisions for the entry and distribution of humanitarian assistance, including assistance provided in connection with disasters.
- Government Decision nr. 663 of 3 June 2003 approving the regulation on humanitarian aid offered to Moldova.
- Government Decision nr. 653 of 2 June 2003 on the Interdepartmental Commission for Humanitarian Aid to ensure the effective distribution of aid and the information channel in between donors and recipients. A list of goods that are prohibited to be transported in Moldova as humanitarian assistance is also annexed to this decision.
- Government decision nr. 1148 of 22 September 2003 on model regulation of the territorial commissions for humanitarian aid, regulating the roles and responsibilities of the territorial (regional) bodies of the Commission for Humanitarian Aid in terms of needs assessment and the distribution of aid.
- Government decision nr. 1076 of 16 November 2010 on emergency situation classification and on collecting and presenting information in case of, and establishing a uniform methodology to assess emergency situations, defining emergency areas and early warning of the populations, as well as setting information management structures for the events of emergencies.

[23] *The National Action Plan for the implementation of the RM-EU Association Agreement 2014-2016*

8.2 Current status of practices and area of excellence

While it cannot be said that host nation support is developed in Moldova, HNS related provisions do exist in national legislation and practices[24].

The system has been tested during some relatively recent emergencies, such as the floods in 2008 and 2009, when international assistance was requested and received. In addition, Moldova hosted the "Codrii 2011" international consequence management field exercise, organised in partnership with NATO/EADRCC, where host nation support related procedures were verified.

Additionally, Moldova reports that the civil protection / disaster risk management sector is familiar with the HNS concept in general, which also entails the application of relevant provisions of bilateral agreements on mutual disaster relief and the acknowledgment of the guidelines within the NATO Memorandum of Understanding on vital cross-border transport. In addition, Moldova is party to the Istanbul Convention on temporary admission.

The recent formation of a Crisis Emergency Management Centre (CEMC) demonstrates Moldova's ambition to have a solid platform on which to deal with emergency situations, and the CPESS requested assistance from the PPRD East 2 team to formulate HNS standard operating procedures (SOPs) for the new CEMC and, with the facilitation of the PPRD East 2 Programme, an Exchange of Experts was arranged with the Civil Protection Department of Italy.

Moldova also requested to host the first HNS TTX on the PPRD East 2 Programme. This was held in the CEMC between 29 September and 1 October 2015. The 3 day long exercise was well attended by 26 participants from the following Ministries and Departments:

- Civil Protection and Emergency Situations Service of the Republic of Moldova
- Ministry of Transport
- General Inspectorate of Police
- Border Police
- Ministry of External Affairs and EU Integration
- Ministry of Defence
- Custom Service
- National Centre of Public Health
- Hydro meteorological Service
- Ministry of Labour
- Materials Reserves Agency
- Ministry of Agriculture
- Ministry of Transport and Road Infrastructure
- Water Management Agency.

[24] *Study on the Provision of International Assistance and Host Nation Support*

It was extremely useful to have the different Ministries and Departments taking part in the exercise and excellent discussions took place in each plenary. Unfortunately, the Ministry of Finance were not available to attend, which would have been beneficial to clarify some of the financial aspects.

8.3 Findings and Recommendations

For an effective and efficient acceptance of international assistance, it is crucial that Moldova has solid and systematic solutions, which, in advance of the emergency, have identified and addressed all (or at least the most common/expected) legal issues that may constitute obstacles to the overall objective of facilitating acceptance of this assistance. It was clear from the table-top exercise, and ensuing discussions, that HNS is understood but requires the development of agreements, laws, bi-laws and/or Memorandums of Understandings to support the decisions made by the HNS teams and CPESS officers. The responsibility falls on the relevant Government departments to coordinate, and jointly develop, these regulations (SOPs) to provide a solid platform on which to perform HNS duties.

8.4 Road Map

As the authority responsible to collect, compile and submit information to the Government about any emergency, the CPESS should head the development of HNS and, in order to achieve a fully functional HNS structure, and in accordance with the National Action Plan for the implementation of the RM-EU Association Agreement, by quarter 4 of 2016, the following milestones must be achieved:

- The CPESS will ensure all levels of emergency management authorities/actors are aware of the EUCP Mechanism;
- For host nation support to be successful, it is vital that cooperation by all associated Ministries is agreed and understood and for that reason, **by the end of February 2016**, the CPESS need to build on the work and discussions undertaken in the Table-Top Exercise and initiate and engage the relevant departments to assist in the development of HNS SOPs. Use of the EU host nation support Guidelines[25] (HNSG) and templates are highly recommended to develop a structure on which to base the format;
- Any additional HNS SOPs to be finalised by the middle of 2018;
- Identify a group of people who would be able to undertake HNS duties. Ideally these would have good English language skills and will have been trained, through the Basic and Operational courses, on host nation support.

Up to the middle of 2018, the CPESS should develop and adopt a regular programme of exercises, which will assist in the capacity building and training of host nation support officers. These exercises will also assist other departments to understand host nation support.

[25] *EU Host Nation Support Guidelines*

9 EU approach to Volunteerism in Civil Protection

Key Assessors	
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9.1 Legal and institutional framework

Law Nr.121 of 18 June 2010, on volunteering, sets the procedures and conditions for the voluntary participation of individuals in volunteering activities in the public interest. According to art.1.2 those activities are done "*without compensation or any other monetary or material compensation except reimbursement related to the implementation volunteering expenses*." Purpose of the Law is to promote and support the participation of the citizens of the Republic of Moldova in the spirit of civic solidarity in volunteer activities organized by legal entities (art.1.3). There are no contractual obligations between the volunteer and the organization unless if the volunteer is active for more than 20 hours per month (art.4) in which case the organization is obliged to conclude a contract containing the following (art.5):

- abilities and capabilities of the volunteer;
- period of the activity;
- an estimate of hours and days of work;
- a description of means entrusted to the volunteer and their costs;
- rights and obligations of parties to the contract;
- establishment of professional standards.

Article 6 of the Law 121/2010 also prescribes the rights of volunteers amongst which an "optional" health insurance in accordance to the Law 756/1999 (Law on "Insurance against accidents at work"). Furthermore, compensation in accordance with the stipulated contract, and other related costs to the activity carried on by the volunteer, are eligible for reimbursement. Volunteers are also entitled to receive accurate information about the organization with which they have stipulated the contract and receive professionalizing training.

Organizations are responsible for the recruitment of volunteers and for providing a safe environment for the volunteer to develop her/his activities (art.7). Interestingly, a safeguard clause has been introduced and foresees that if volunteers are not insured, the cost of health care is fully covered by the organization (art.7.h).

Volunteering Organizations are held liable for misacts committed by volunteers unless the volunteer did not infringe willingly or with negligence, recklessness or malpractice the Civil Code of the Republic of Moldova (art. 8).

Article 17 encourages the participation to international volunteering in European and international volunteering programmes and activities.

9.2 Current status of practices and area of excellence

The abovementioned Law however doesn't mention civil protection activities, which, on the contrary, are carried on by pseudo-volunteering formations. "Volunteers" receive, in this case, a fixed salary for their service (almost 1/4th of the salary of a professional fire-fighter), to monitor the insurgence of fires – mainly forest fires - and implement the necessary containment actions until Institutional forces don't intervene. The formations of "volunteers", that support the national fire-fighting teams, are not a negligible force as they are present in most municipalities.

There is thus a clear involvement of Volunteering forces in civil protection activities, as stated by art.13 of Law No.93 of 5 April 2007 on Civil Protection and Emergencies. Article 13 in fact acknowledges those formations amongst the assets which the civil protection system can count on in order to perform its duties and thus is entitled to: "*verify the local and national economy objectives, the status of individual and collective protection, and the preparedness of civil protection formations and formations of the volunteer fire-fighters to fulfil their duties*".

Although volunteers are accounted for in the national civil protection normative framework, there is a clear problem in the command and control chain as, due to scarcity of financial funds, volunteers are maintained by municipalities and thus don't fall under direct order of the civil protection system (Figure 1).

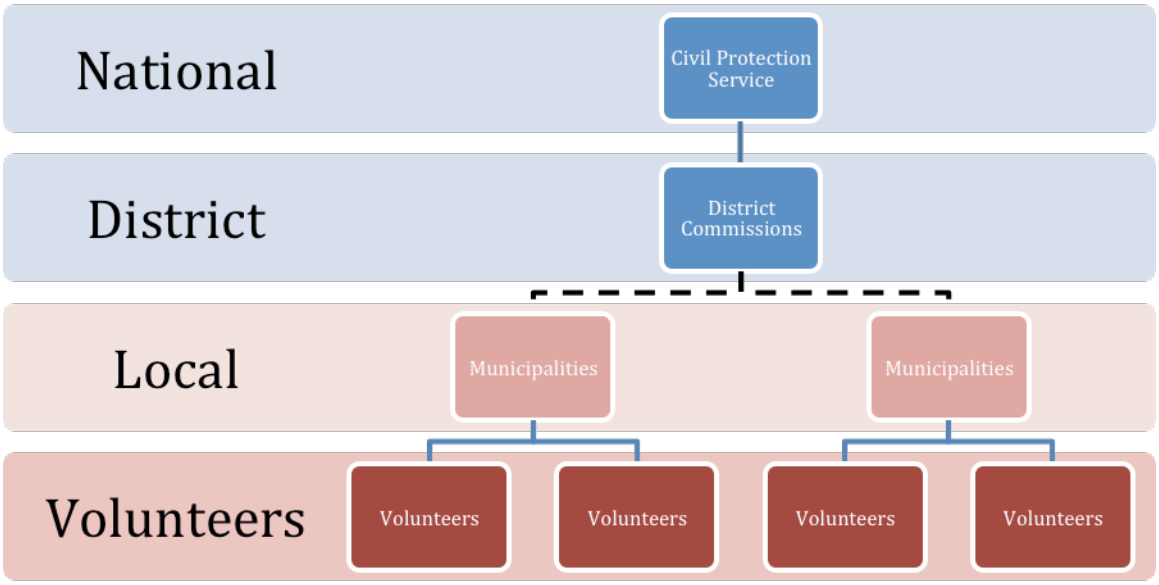

Figure 2 Structure of communication flow in civil protection volunteering activities

In general, decision 1076/2010 obliges local commission to inform district commissions within 30 minutes in case of exceptional situations. Local commission would assess the extent of the event and, if above its possibilities, it contacts district commissions requesting for assistance. If this system works perfectly during emergencies, it does not function in case of prevention and preparedness activities. Volunteers are in this case under the direct command of the Mayor and do not provide assistance, if not in exceptional cases to professional fire fighters. This is the case of DRR and awareness campaigns, which are conducted by

professionals with little to no help by local volunteers, which could, on the contrary, play a very important role in this field.

9.3 Findings and Recommendations

NEED OF IMPROVEMENT CLASSIFICATION: HIGH, MODERATE, LOW

1 – Legal framework: HIGH

The legal framework needs to be modified acknowledging and regulating the existence of volunteers as operative component of the national civil protection system. A full set of laws and by-laws are required in order to clarify the command and control chain. The current legal framework also needs to be amended so that volunteers can provide support to CPESS forces not only during emergencies but also, and mostly, during the peacetime. Furthermore, specification of a set of criteria for the following aspects is required: selection, training, equipping, management, exercising and deployment. At last the legal framework should foresee the development of a force of volunteers able to cope with different hazards and not only fire fighting.

It is recommended to adopt a Law on Civil Protection Volunteerism addressing roles, duties, responsibilities and the chain of command & control within civil protection activities for both volunteers and volunteer organizations. The newly adopted CP volunteering framework should also focus on the provision of a legal basis for the active involvement of volunteers in prevention, mitigation, recovery and reconstruction activities.

2 – Institutional setup: HIGH

Volunteers are a widespread reality in Moldova. They are present in most municipalities however they lack adequate equipment and need professionalizing training. There is, moreover, the need for the definition of standardized procedures defining a clear management system of CP volunteers coordinated with national and local needs. It is also recommendable that volunteers take part and support in the dissemination of disaster risk management culture at local level. This could be done by involving volunteers in the implementation of DRR campaigns.

It is recommended to reform the volunteering institutional setup by:

- *Providing SOPs for the coordination of national and local efforts in civil protection volunteering activities*
- *Train and equip volunteers*
- *Promote mentoring of volunteers as one of the capacity development approach.*

3 – Networking with volunteer organisations: HIGH

Volunteering groups are a scattered reality in the Moldovan society. Connections with the national CP system are not strong and, furthermore, strategies are not concerted at national level thus requiring a high level of improvisation. There isn't a national registry of volunteers or volunteering organizations.

It is recommended to develop a national database, subdivided at regional level, of volunteers and volunteer organizations accounting for personal skills and available equipment.

4 – Protection of volunteers: MODERATE

Article 6 of the Law 121/2010 prescribes an optional insurance of volunteers and art.7 states that in case of a need, medical cures will be paid by the volunteering organization.

It is recommended that insurance is always provided to those volunteers that, with the necessary and certified skills, are called upon to deliver assistance in perilous circumstances.

5 – Funding of volunteer organisations: HIGH

Sustainability of the CP volunteering system is mainly granted by municipal budgets. Currently, volunteering organizations are not fully prepared to maintain and strengthen capacities of volunteers without full support of the public administration. This implies that the CP volunteering system is fully dependant on availability of funds in public finances. As a setback, CPESS cannot take full advantage of such a valuable support impeding the development of specific CP goals (i.e. supporting municipalities in the development of emergency planning). It is thus fundamental to build capacities within volunteer organization for the development of self-financing strategies.

It is recommended to help volunteering organizations to develop and adopt self-financing plans, in accordance with the existing regulatory framework and budgetary constraints, for the sustainable development of voluntarism and its vital role in the CP system.

9.4 Road Map

Topic	Recommendation	Who	How	When
Legal framework	Adoption or revision of legislative framework on CP volunteering including minimum standards for volunteering organizations, development and maintenance of a database of	Cabinet of Ministers Parliament CPESS Volunteering Organizations	1) Establishment of a Working group addressing modifications or promulgation of additional Laws on roles and areas of action of CP volunteers. 2) Promulgation of additional thematic SOPs for Civil	2016-2020

	volunteers and volunteering organizations and Insurance of volunteers		Protection volunteers	
Institutional setup	Setting up a minimum set of technical requirements for the involvement of volunteers and volunteer organisations in CP system	CPESS Volunteering organizations	Establishment of a working group including all the relevant stakeholders for the development of minimum required standards for volunteers and volunteering organizations	2016
Institutional setup	Monitoring the effectiveness of adopted standards, SOPs and legal acts	CPESS Volunteering organizations	Evaluation survey	2016-2020
Networking with volunteer organizations	Collecting exhaustive information on existing volunteer organisations in overall country	CPESS Volunteering organizations	Developing national database	2016-2017
Protection of volunteers	Insurance for volunteers involved in hazardous activities	Cabinet of Ministers Parliament CPESS Volunteering organisations	Establishment of a working group for assessing the impacts on economical sustainability after the adoption of mandatory insurance for CP volunteers	2016-2018
Funding of volunteer organizations	Adoption of strategies to sustain the development of	CPESS Volunteering Organizations	Training (TOT) and promotion of capacity building on financial	2016-2020

	voluntarism		sustainability and VO management	

10 Raising Awareness about Disasters

Key Assessors	
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Country Thematic Focal Point	Liliana Puscasu
Chapter validated by	Sergiu Gradinaru National Advisory Group

10.1 Legal and institutional framework

The Law of Republic of Moldova Law No. 93 from 5 April 2007 on Civil Protection and Emergency Situations Service and Law No. 271-XIII of 9 November 1994 "On Civil Protection" very clearly define requirements and responsibilities of civil protection authorities for awareness raising about disasters.

First of all, they establish the position of the Civil Protection and Emergency Situations Service of the Ministry of Internal Affairs (CPESS) as the central specialized body of public administration in civil protection.

They stipulate responsibilities of public authorities, according to their competences established by law. They must provide to the population correct information, through mass media, about the degree of its protection, and in case of emergency onset about the character of danger that appeared, about the actions that people need to take in that situation and measures that are taken to protect them.

Civil Protection and Emergency Situations Service of the Ministry of Internal Affairs has the following tasks:

- develop programs and organize training of administrative authorities, Civil Protection forces, as well as training of population on civil protection matters;

Local public administration authorities have the following tasks:

- ensure timely warning of population in case of emergency threat or onset, inform people about rules of behaviour and actions required in given situation;
- organize training of Civil Protection units and of population on civil protection matters.

Training of civil protection matters of the executive personnel, of the workers and personnel of Civil Protection units of economic entities is provided by heads of those economic entities, taking into account their peculiarities, during working hours, according to present law and Government's instruction.

Executives and specialists from economic entities, after being confirmed in their job position, must be trained in civil protection matters in order to be able to fulfil their job obligations in civil protection. Their further civil protection training must be organized at least every third year, they being taken to specialized civil protection training centres.

10.2 Current status of practices and area of excellence

The survey on raising awareness about disasters which was conducted through a desk research and a questionnaire showed that although the Civil Protection and Emergency Situations Service is in process of drafting of a Communication and Prevention Strategy, the national Communication Strategy doesn't exist.

It is due to the fact that the drafted Strategy will be adopted by the CPESS and as such will not have a legal status of a national Communication Strategy. The Strategy which is under development is planned to be adopted by the end of 2015 and will cover main population groups - pre- and schoolchildren, youth, elderly and disabled people, civil protection volunteers and civil protection professionals.

The activities on raising awareness about disasters in schools which the CPESS, namely the Public Relations and Prevention Division and Republican Training Centre are responsible for, cover all levels of national educational system, however they are not part of regular education. The CPESS representatives organize them in a form of a different public information campaigns with the assistance of Public Relations and Prevention Division. According to the information received from the CPESS, the amount of learning materials for the children (books, booklets, brochures, etc.), which is distributed, is insufficient and covers approximately only 5% of the overall children population.

The CPESS also organises additional events for children, for example various trainings, info campaigns and different contests. These activities are conducted in collaboration with the Ministry of Education (MoEd), however as was pointed out in the questionnaire, the involvement of MoEd can be significantly increased.

The CPESS expressed positive experience from working with the Journalist Network (JN), which was developed during the PPRD East Phase 1 and its willingness to support this collaboration also during the PPRD East 2.

Since the end of the PPRD East Phase 1, the CPESS organised a number of prevention awareness campaigns focused for example on specific risks of drowning or on setting a fire during summer and winter seasons. The main target groups of these campaigns were children and elderly people.

The CPESS proposed following topics to be addressed during the PPRD East 2 Programme:

- Fire Prevention Campaigns for summer and winter seasons
- Provision of assistance to CPESS in printing info materials and organizing info campaigns.

10.3 Findings and Recommendations

Based on the feedback provided by the CPESS, it seems that the most significant gap lies in the awareness raising activities for children, particularly in

1) insufficient amount of learning materials for them and

2) not fully sufficient involvement of the MoEd in this process.

In order the remedy the above listed shortfalls, it is recommended to

1) identify and analyse reasons why sufficient amount of learning materials for children, as one of the most vulnerable population groups, is not provided and to seek potential solutions to improve this situation, and

2) to identify the reasons why the MoEd is not fully involved in public awareness raising activities for children and to find solutions how to systemize its participation in this process, e.g. through the new Strategy or through a bilateral agreement between CPESS and MoEd.

In the context of the Communication Strategy which is being developed by the CPESS, the PPRD East 2 strongly recommends:

3) to focus also on drafting and development of an Action Plan for the implementation of the Communication Strategy.

10.4 Road Map

The road map proposes the prioritization of the recommendations, timeframe for their implementations and responsibilities of the involved interlocutors.

Activity 1.1 – Formation of a working group consisting of all organisations involved in disasters awareness-raising activities for children

Responsibility: CPESS

Timeframe: by June 2016

Support: PPRD East 2 Programme

Activity 1.2 – Inventory of all existing learning materials for children, revision of distribution schemes, identification of who does what, including identification and listing of financial resources invested into development and provision of learning materials for children by all involved stakeholders

Responsibility: working group

Timeframe: by August 2016

Support: PPRD East 2 Programme

Activity 1.3 – Analysis of results of Activity 1.2 and identification of potential gaps, overlaps, etc. in the existing system and provision of recommendations how to address those gaps

Responsibility: working group

Timeframe: by December 2016

Support: PPRD East 2 Programme

Activity 1.4 – Implementation of recommendations developed within the Activity 1.3

Responsibility: all national stakeholders active in raising awareness about disasters for children

Timeframe: by August 2017

Support: PPRD East 2 Programme

Activity 2.1 – Review of existing frameworks (institutional, legal, etc.) defining cooperation of the CPESS and MoEd in raising awareness about disasters for children and identification whether they provide clear and solid foundation for the cooperation

Responsibility: CPESS

Timeframe: by February 2016

Support: PPRD East 2 Programme

Activity 2.2 – Bilateral meeting(s) between the CPESS and MoEd to address the findings of Activity 2.1

Responsibility: CPESS and MoEd

Timeframe: by June 2016

Support: PPRD East 2 Programme

Activity 3.1 – Formation of an inter-institutional working group for drafting the Action Plan for implementation of Communication Strategy for raising awareness about disasters

Responsibility: CPESS

Timeframe: by February 2016

Support: PPRD East 2 Programme

Activity 3.2 – Development of Action Plan for implementation of the Communication Strategy for raising awareness about disasters

Responsibility: all national interlocutors active in raising awareness about disasters

Timeframe: by October 2016

Support: PPRD East 2

Activity 3.3 – Implementation of the Action Plan and Communication Strategy for raising awareness about disasters

Responsibility: all national interlocutors active in raising awareness about disasters

Timeframe: from November 2016

Support: PPRD East 2 (until the end of the Programme)

11 Data and information sharing and INSPIRE Directive

Key Assessors	
PPRD East 2 Expert(s)	Luca Molini Marco Massabò
Country Thematic Focal Point	Tamara Rudenco
Chapter validated by	Tamara Rudenco National Advisory Group

11.1 Legal and institutional framework

Moldova is currently revising its legal framework toward the organization of the management of geo-reference data in line with the provisions of the EU INSPIRE Directive. The regulatory framework of Moldova is currently based on the Law on Geodesy and Cartography no. 778-XV of 27 December 2001, but the approach for sharing, using and updating of geographical data is under modification. Specifically, a new "Umbrella Law" has been drafted and it is currently discussed in the Parliament. This general piece of legislation will approximate Moldova regulatory framework towards the EU INSPIRE Directive and it is one of the main outputs of the Twinning Project "Organization, Streamlining and Computerization Process in Mapping in the Republic of Moldova", jointly implemented by Sweden and Croatia. The Agency of Land Relations and Cadastre of Moldova is the main beneficiary of the Project, while the implementers of the Project are Swedesurvey - the Swedish mapping, cadastral and land registration authority, and State Geodetic Administration of Croatia.

The Agency of Land Relations and Cadastre (ALRCRM) is a public authority responsible for the coordination of the National Spatial Data Infrastructure of Moldova. Its statute was approved by Decree of the President of the Republic of Moldova No 230 of 27 July 1994. ALRC carries out execution, control, supervising, and other functions in the field of land relations, geodesy, mapping, cadastre and Geographic Information System activities, and to some extent Land Information System activities also, building up the structure of the so-called National Spatial Data Infrastructure (NSDI) of the country.

11.2 Current status of practices and area of excellence

As specified above, the Agency of Land Relations and Cadastre is the national coordinator of the NSDI of the country. The development of the NSDI has a new momentum during the implementation of the Twinning Project "Organization, Streamlining and Computerization Process in Mapping in the Republic of Moldova". The Project started in October 2014, and provides support to ALRC for the implementation of activities divided in 4 components:

- Draft geographic data umbrella Law in line with the EU INSPIRE requirements;
- Demonstration of an effective regional SDI solution with several stakeholders in line with EU best practices;
- Demonstration of a local SDI solution with several stakeholders in pilot areas in line with EU best practices;

- Demonstration of network services in the field of data sharing under the responsibility of ALRC.

The Twining Project will also produce a Strategy for Implementation of Data Infrastructure.

ALRC is going to develop the national Geoportal in according with main principles of INSPIRE i.e. a Geoportal that can act as an interface to a national or sectorial metadata catalogue that enables users in society, either a state body, a private company or a citizen, to search for and find spatial data that they can use for their purposes. Currently ALRCRM has two geoportals:

- The National Geospatial Data Fund (http://geoportal.md) provides every end-user an easy access to geographical information. Data available to citizens include the following datasets from the INSPIRE Directive: cadastral plots, public infrastructures, cultural, society and demographic data, orthophoto images, land use, etc. National Geospatial Data Fond is used for centralized accounting, storage and use of topographical, geodetic and mapping documents. Topographical, geodetic and mapping map and data are distributed for use to public authorities and private sector on demand, observing the Fund regulations.
- The e-cadastre (https://www.cadastru.md/ecadastru/webinfo/f?p=100:1:4430210126433857) provides every end-user an easy access to cadastral information.

Other thematic geoportals present in Moldova are:

- The Environmental Information System of MoE (www.gismediu.gov.md) - it contains thematic data on environment such as water cadastre, river network, land cover, location of industry and waste treatment plant, natural protected area etc.
- CPESS has developed a Disaster Information System for real-time emergency management that collects a large amount of data on crisis situations and for the management of rescues operations.

CPESS is the main beneficiary of the Electronic Regional Risk Atlas (ERRA), a web-GIS portal developed under PPRD East 1 for recording and sharing hazard and disaster risk information for natural and man-made disasters. ERRA will be further developed under PPRD East 2.

11.3 Findings and Recommendations

NEED OF IMPROVEMENT CLASSIFICATION: HIGH, MODERATE, LOW

1 – Transposition of EU INSPIRE Directive into national law: HIGH

A new "Umbrella Law" has been developed for the approximation to the EU INSPIRE Directive and it is currently under the approval process.

It is recommended to adopt the new "Umbrella Law" recently developed.

2 - Development of NSDI strategy: HIGH

An NSDI strategy is under development and it should identify a sustainable implementation path for the implementation of NSDI.

It is recommended to develop the strategy in conjunction with a NSDI implementation plan, to involve in the process all the stakeholders and to ensure the allocation, on regular basis, of the necessary economic resources for the NSDI full functioning. Indeed, there is a need to define a business model for NSDI that will ensure the maintenance and update of geographical data and the open access to data. Finally, it is recommended that the strategy properly address a public sector data sharing agreement for data use, with the objective of promoting the efficient collection, processing, exchange and sharing of spatial data.

3 – Institutional setup: HIGH

The institutional coordination of NSDI is in charge of ALRCRM, however there is a need to further disseminate among Moldova agencies and institutions the "INSPIRE vision" to become part of the mapping system of Moldova.

It is recommended to further promote and disseminate among national and local agencies of Moldova the "INSPIRE vision" on collecting, processing and sharing geospatial information data and maps.

4 – National Spatial Data Infrastructure development: HIGH

In order to develop a systematized and standardized metadata catalogue, there is a need of using one common National Metadata Profile And Catalogue for documenting spatial data and services in line with European Standard (INSPIRE). There is also a need to collect new spatial data for the entire country in order to achieve an homogeneous coverage of the countries in term of data and maps available; it is further need to develop the capacity of national and local institutions to deal with the requirements of the INSPIRE Directive.

The following recommendations for National Spatial Data Infrastructure development are identified:

- *Develop the National Metadata Profile and Catalogues as envisaged in the Twinning Project.*
- *Collect new spatial dataset for the entire country (i.e. laser scanning);*
- *Conduct an extensive training for all organizations and agencies that produce and use geographical data in order to facilitate the preparation of new data and maps in compliancy with the requirements of the EU INSPIRRE directive;*
- *Develop a proper long-term strategy for the inclusion of spatial data management and processing into high-level education program of Moldovan Universities.*

5 - Data Sharing: HIGH

Data and maps are often produced without the required standard and specifications.

It is recommended to create a public sector data sharing agreement for data use with the objective of promoting the efficient collection, processing, exchange and sharing of spatial data.

It is also recommended to develop the national Geoportal - which will be used for search of data and network services at the thematic platforms already present in the country (namely: the Environmental Information System of MoE (www.gismediu.gov.md), the national Geoportal of the Agency for Land

Relations and Cadastre of the Republic of Moldova (www.geoportal.md), the Electronic Regional Risk Atlas ERRA and the Disaster Emergency Information System of CPESS).

11.4 Road Map

Topic	Recommendation	Who	How	When
Legal and institutional framework	Adoption of EU Inspire Directive into Moldova national law	Cabinet of Ministers / Parliament	Approve the "Umbrella law" drafted under the Twinning Project *Organization, Streamlining and Computerization Process in Mapping in the Republic of Moldova*	By the end 2015
Institutional setup	Dissemination of "INSPIRE" vision into institutional framework	ALRCRM (Coordinator of working groups)	Organization of workshop and capacity building activities for ministries and agencies	Already started-end by the end 2017
NSDI Strategy	Development of a NSDI strategy and implementation plan and establish of NSDI unit at the ALRCRM	ALRCRM (coordinator)	ALRCRM coordinates a stakeholder group that develops the necessary strategy and implementation plan	Start early 2016 – end by the end 2016
National Spatial Data Infrastructure Development	Establish of NSDI unit at ALRCRM	ALRCRM	Establish an NSDI unit at ALRCRM as part of the implementation plan	by the end 2016
National Spatial Data Infrastructure development	Developing National metadata Profile	ALRCRM	The National Metadata Profile is one of the outputs of the Twinning	By the end of 2015 (as envisaged by the timeline of the

			Project *Organization, Streamlining and Computerization Process in Mapping in the Republic of Moldova*.	Twinning Project *Organization, Streamlining and Computerization Process in Mapping in the Republic of Moldova*)
National Spatial Data Infrastructure development	Developing a National Metadata Catalogue	ALRCRM	The National Metadata Catalogue is one of the outputs of the Twinning Project *Organization, Streamlining and Computerization Process in Mapping in the Republic of Moldova*.	By the end of 2016 (as envisaged by the timeline of the Twinning Project *Organization, Streamlining and Computerization Process in Mapping in the Republic of Moldova*)
National Spatial Data Infrastructure development	Education and training	ALRCRM (Coordinator of working groups)	Development of training for organizations and agencies that produce and use geographical data. Establish training Units within the state institutions	Start early 2017- end by end 2017
National Spatial Data Infrastructure development	Education and training	Moldovan Universities in collaboration with ALRCRM	Develop a proper long-term strategy for the inclusion of spatial data management and processing into high level education program of Moldovan Universities	Start end 2017- end by end 2018
National Spatial	Newly collected	ALRCRM	Collection of new	Already started -

Data Infrastructure development	and extensively restructured spatial data sets	(Coordinator of working groups)	spatial dataset for the entire country (i.e. laser scanning)	end by end 2018
Data Sharing	Data sharing between stakeholders for instance via network services	MoE, SHS, Apele Moldova, ALRC CPESS	Producing and providing metadata and network services by public institutions according to INSPIRE directive standards. Connection of existing thematic geoportals and spatial databases (National Geospatial Data Fund, e-cadastre, Environmental information system of MoE, Disaster Emergency Information system of CPESS and ERRA). Full development of the National Geoportal as national platform for accessing geospatial data. Develop and adopt procedure for data exchange.	Start mid 2016 – end by mid 2017

12 ERRA

Key Assessors	
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12.1 Institutional framework

Moldova has a clear plan that foresees the establishment of a National SDI and a National Geoportal to store all official geospatial information in an INSPIRE compliant mode. There is an on-going Twinning Project for the Agency of Land Relations and Cadastre (ALRC) on the Organisation, Streamlining and Computerization Process in Mapping in the Republic of Moldova and the first component of the Project is to "Draft a Geographic data umbrella Law in line with the EU INSPIRE requirements". The draft is expected to be ready in October 2015. This will contribute to development of a NSDI and a related National Geoportal. As a result of that, Moldavian investment will go naturally in that reference Portal also for the storage of data related to disasters. ERRA needs to be cast in such framework and an investment in full interoperability with the National Geoportal needs to be done. ERRA is also part of the Moldova – EU Association Agreement under the information exchange on disaster risk assessment (part of Article 119), where cooperation to progress with the development of a country-wide DRA is supported as well as the development of ERRA and ensure its effective use at national level. ERRA is seen as a web Geospatial portal, while maps and other information layers will be produced outside ERRA and then uploaded to ERRA. In this light, the catalogue functionality of ERRA should be enhanced.

Interoperability and relations with the Geoportal in use at the Environmental Pollution Prevention Office of the Ministry of Environment is of foremost importance as many of the layers hosted there are necessary for the development of the DRA information.

12.2 Current status of Installations and Use

Moldova has currently one installation of the ERRA platform at CPESS placed on a server in Czech Republic hosted by a private company. This installation needs to be migrated on a local server in the CPESS. The remote installation is now on a public address and reachable at http://md-erra.pprd-east.eu/. A second installation is foreseen in the institutional cloud that will be soon available to all Moldavian institutions. The final setup of the installation will be therefore in these two already identified locations. With high probability, the installation in the CPESS will be on a Private Network, while the one in the Institutional Cloud will be public so to guarantee accessibility to selected layers at regional level.

The use of ERRA has been discontinuous at CPESS that does not include the use of the ERRA tool it in its SoPs. The use of the platform was mainly to access domestic information rather than information from other countries.

Metadatation is managed outside ERRA and the metadata catalogue on ERRA has been underexploited even for metadata consultation while metadata have been imported by other geoportals. The catalogue functionality in ERRA has been used to link data by other Geoportal in use at the ministry of Environment.

The Q-GIS plugin of ERRA has never been used even if Q-GIS is used in Moldova in combination with Arc-GIS. The representatives of Moldova at the Regional ERRA Workshop knew about the Vulnerability module in ERRA. However due to technical issues in its application during the Phase 1, the vulnerability information were transferred in excel tables to the PPRD East Phase 1 experts. CPESS never used the Critical Asset Modules. The mobile app is not used so far, but it is considered an interesting feature.

12.3 Findings and Recommendations

1 – Installation

ERRA should be reachable outside the Private Network of CPESS and also should be used by other institutions involved in DRA.

It is recommended to proceed with the local installation of ERRA at CPESS and at the same time speed up with the second installation in the National Cloud that will serve as a public ERRA node. The installation guide should be delivered in advance to the installation mission, so that CPESS can try the installation on their own.

2 – Use in Emergency and Strategic Planning

The main users identified are operators that have activities related to the disaster risk assessment in their mandate both in the CPESS and the Ministry of Environment. A path for the implementation of the EU Floods Directive is in place and thanks to the EU-Moldova Association Agreement, the EUFD will be implemented. However, there is no institution that is specifically mandated for disaster reduction and disaster management plans and therefore while a budget exists for recovery, there is no specific budget line for disaster risk assessment.

It is recommended to strengthen the use of ERRA both at CPESS and at the MoE including ERRA in the SoPs that the competent department in the Ministries have or will develop on DRA information production, storage and management.

3 - Mainstreaming with other National initiatives

A NSDI is about to be established in Moldova and this will have an investment in a national Geoportal that should guaranty inter-institutional data exchange. Up to now several software tools are in use in Moldavian institutions that have many highly skilled ICT employees. Many of the software used are Web-based as ERRA (e.g., Environmental Pollution Prevention Office (EPPO) has its own Geoportal).

In this context, it is recommended to invest in interoperability. Full compliance with the national Geoportal needs to be guaranteed so that specific clients like ERRA in case of disaster related information can be effectively used and the information contained in ERRA are accessed by other interested institutions.

4 - Support of DLD Collection and visualization

Disaster loss data are perceived as a real added value to ERRA.

It is recommended to develop a disaster loss data module in ERRA that helps the roadmap suggested in the DLD section.

5 - Data sharing inside Moldova

Although Moldavian Institutions are well aware of the importance of data sharing in the context of DRR, there is still a lack of spatial data that respect sharing standards at national level. The design of a roadmap for the Implementation of the INSPIRE Directive is on the way as part of a Twinning Project (see INSPIRE Chapter). Open Data has a cost that should be considered for sustainability. As per the assessment mission, the elaboration of a proper business model for National Spatial Data Infrastructures, that includes the management of open and free data in a sustainable way, is still missing.

It is recommended to define a Data Sharing Policy that includes rules for the information sharing regarding disasters, in line with the results of the Twinning Project on the INSPIRE Directive, especially with the wider public.

6 - Data sharing in the ENPI East Region

Moldova would be inclined to push data sharing not only with the PPRD East Partner Countries but also with the EU Member States sharing boundaries with Moldova. So far, despite some trials, problems have been experienced especially for data useful for disaster risk assessment (e.g. Digital Elevation Models).

It is recommended to define a data sharing policy that includes rules for the information sharing at international level.

12.4 Road Map

Topic	Recommendation	Who	How	When
Installation	Reaching stability in the ERRA installations	CPESS in coordination with MoE	Installing the system locally at CPESS with the support of the PPRD East 2 ERRA expert and installing the second server on the national e-cloud	end 2015
Use in Emergency and Strategic	Inclusion of ERRA in the SoPs of CPESS and	CPESS and MoE	CPESS to establish a technical-operational WG to	mid 2016

Planning	increasing use in MoE		include ERRA in SoPs. MoE should receive focused training on ERRA so that it will be included in the daily work of MoE departments and related offices	
Mainstreaming with other national initiatives	ERRA interoperability with the national Geoportal	CPESS in coordination with ALRC	Establishing a working group on the technical level including all the stakeholders with the support of PPRD East 2 IT expert	Start early 2016 – early 2017
Support of DLD collection and visualization	Development of ERRA DLD Module	CPESS	Establishing a technical working group including all the stakeholders to interact with PPRD East 2 ERRA ICT experts	Mid 2016
Data sharing inside Moldova	Definition of rules for the information sharing, especially with the wider public in compliance with the NSDI directives	CPESS (coordinator)	Establishing a working group including all the stakeholders	Early 2017
Data sharing in the EaP Region	Clarify the type of information and the level of aggregation for the data sharing	CPESS	Establishing a working group including all the stakeholders	Early 2017

13 Annexes

Annex 1 - HNS SOP template

Annex 2 – List of Interlocutors