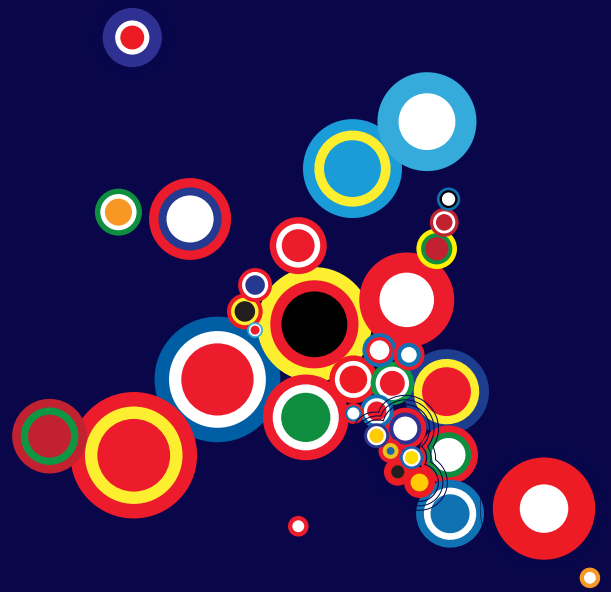




INSTRUMENT FOR PRE-ACCESSION ASSISTANCE (IPA II) 2014-2020

MULTI-COUNTRY

Disaster Risk Assessment and Mapping



Action Summary

To contribute to the capabilities of the Western Balkans and Turkey to develop effective, coherent and EU oriented national systems for disaster loss data collection, risk assessment and mapping, and to ensure their approximation and integration into the Union Civil Protection Mechanism.

- To improve and further develop national systems for disaster loss data collection based on the EU guidelines and good practices; to establish modalities for regional data sharing and linkages to European or global disaster loss databases.
- To improve and further develop national risk assessments following EU guidelines and good practices, in particular including identification of risks of cross-border and regional aspects.
- To improve and further develop national and regional risk mapping, and to establish an Electronic Regional Risk Atlas (ERRA).

Action Identification	
Action Programme Title	IPA II Annual Multi-country Action Programme 2015
Action Title	Disaster Risk Assessment and Mapping
Action ID	IPA 2015/038-052.08/MC/disaster risk
Sector Information	
IPA II Sector(s)	9. Regional and territorial cooperation
DAC Sector	74010 Disaster Prevention and Preparedness
Budget	
Total cost (VAT excluded)¹	EUR 3 million
EU contribution	EUR 3 million
Management and Implementation	
Method of implementation	Direct management
<i>Direct management:</i>	DG ECHO (cross sub-delegation with DG NEAR)
Implementation responsibilities	DG ECHO Unit A5
Location	
Zone benefiting from the action	Western Balkans and Turkey
Specific implementation area(s)	Albania, Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia, Kosovo*, Montenegro, Serbia and Turkey
Timeline	
Deadline for conclusion of the Financing Agreement	<i>Not Applicable</i>
Contracting deadline	<i>31/12/2016</i>
End of operational implementation period	<i>31/12/2019</i>

¹ The total action cost should be net of VAT and/or of other taxes. Should this not be the case, clearly indicate the amount of VAT and the reasons why it is considered eligible.

* This designation is without prejudice to positions on status, and is in line with UNSCR 1244/1999 and the ICJ Opinion on the Kosovo Declaration of Independence

1. RATIONALE

Disaster risk management is a central issue for development policies. Disasters affect any country's economic and environmental standing, diminish countries' potential for economic growth, pose a risk for social stability and jeopardize EU investments in the country/region. Every dollar of foreign aid spent on averting and mitigating disasters saves in the long term an average of 7 USD in disaster response and reconstruction² (Source: UNOCHA, the United Nations Office for the Coordination of Humanitarian Affairs, and UNDP, the United Nations Development Programme). The EU works on including disaster risk management in major policies and financial instruments. To this end the EU is promoting the establishment of coherent and comprehensive disaster loss databases, national risk assessments and mapping by the EU Member States and which will help improve the awareness and understanding of the risks a country faces and will create a better position for the decision makers, stakeholders and other parties to prioritise and allocate investments in almost all sectors of the economy. Risk assessment has also become an ex-ante conditionality for EU Member States for obtaining support from the EU Cohesion Fund.

The Western Balkans and Turkey are exposed to a wide range of disasters and it is expected that the impact of climate change, accompanied by changes in land-use patterns, will further increase disaster risk in the coming years. The recent devastating floods in the region (Serbia and Bosnia and Herzegovina, May-June 2014) confirmed that most countries continue to have difficulties integrating risk reduction into public investment planning, urban development, spatial planning and management, and social protection. Without significant efforts to ensure the integration of effective disaster risk management policy into the economic policies, countries will not mitigate the risk of losing further productive capacities or having unsustainable investments.

This regional capacity building Action Programme on risk assessment and mapping for the Western Balkans and Turkey will (i) create an open platform for development/improvement of national disaster loss databases, risk assessments and mapping; (ii) enhance the coherence among the national systems and methodologies and (iii) make them consistent with the existing EU guidelines and EU good practices. Each of these three elements – disaster loss databases, risk assessment and risk mapping, represents an important tool in the process of disaster risk management and should become eventually a wide spread instrument for the development of risk management strategies for the different sectors of the economy. In addition to the contribution to the beneficiaries' capabilities to develop effective, coherent and EU oriented national systems for disaster loss data collection, risk assessment and mapping, the Action Programme will also ensure their approximation and integration into the Union Civil Protection Mechanism. By the end of 2020, the European Commission is expecting that all countries from the region will become members of the Mechanism.

Risk assessment

As a part of the new EU Civil Protection legislation which came into force in January 2014 the Participating States to the Union Civil Protection Mechanism are required to develop risk assessments at national or appropriate subnational level and make available to the European Commission a summary of the relevant elements thereof by 22 December 2015 and every three years thereafter. So far, the European Commission has received a contribution of 17 EU Member States and Norway. Out of these 18 contributions, 11 are complete or well-advanced national risk assessments which can be used as a source of good practices and expertise.

² Since 2000, it is estimated that floods, cyclones, tsunamis, earthquakes and other natural hazards have cost the world more than \$1 trillion in destruction. Despite the increased frequency of extreme weather events around the world, only 1 per cent of international aid funding has been spent on disaster risk reduction over the past few years. The UN estimates that an investment of about 10 per cent of international development assistance per year could help avert the enormous cost of destruction and help communities cope better with future disasters. <http://www.unocha.org/top-stories/all-stories/un-launches-video-saving-lives-through-preparedness>

In view of the current and future participation of the EU candidate countries and potential candidates in the Union Civil Protection Mechanism and in view of the Beneficiaries' approximation to the EU standards this Action Programme will provide support in order for the beneficiaries to be able to respond to the same requirements which the EU Member States are facing in the field of risk assessment and achieve the same progress for their own benefit and for strengthening regional cooperation.

Creating an open platform for national risk assessments will improve the coherence and consistency among the risk assessments undertaken in the beneficiaries and will allow them to join forces to overcome future national or cross border challenges caused by natural and man-made disasters. At national level risk assessment the action will help improving the awareness and understanding of the risks faced and will create a better position for the decision makers, stakeholders and other parties to agree on preventive measures that need to be taken to avoid the most severe consequences of upcoming hazards. The decision makers will be better informed on how to prioritise and allocate investments in prevention preparedness and reconstruction measures.

Disaster Loss Databases

Risk assessment requires accurate recording of previous disasters and, in particular, the associated losses in terms of human casualties, property and environment damage as well as economic loss. The collection of data and the assessment of disaster impact is a challenge in many countries since it involves different institutions and actors, and requires consistent application of an agreed methodology. In addition, from a European perspective, countries' methodologies for assessing losses could be quite different and there is no common approach that would enable the databases to be combined and provide a trend at European or global level.

A step ahead in addressing this issue was the publication of the Recommendations for a European approach on recording of disaster losses in 2013 by the Joint Research Centre. The document defines a conceptual framework for the utility of loss data by considering loss accounting, disaster forensics and risk modelling as key applications. At the beginning of 2015, the JRC is planning to step-up the work and produce EU loss database guidelines. On the basis of the guidelines and with the help of this IPA II Action Programme the Western Balkans and Turkey can further develop/revise/improve the national data collection and processing, and eventually the sharing of information on impact of disasters at regional, European and global level by connecting relevant communication platforms and databases.

Risk mapping and electronic regional risk atlas

Once risks are analysed in detail, it will be possible to plot risk maps as one of the outputs of the risk assessment. Risk maps are an important tool for developing a risk management strategy and are beneficial for a large number of sectors. The Electronic Regional Risk Atlas (ERRA) can provide countries in the region with a professional tool for storing, publishing and using information to improve the daily work of civil protection authorities. It is an internet based tool designed to store hazard, vulnerability, critical infrastructure data and disaster risk assessment maps, assess the potential impact of disasters, monitor the real time progression of disaster, and provide inputs to determine the most effective use of resources and funds. The ERRA combines hazard maps with vulnerability and asset maps, and it will be connected to the European monitoring tools (GDACS – Global Disaster Alert and Coordination System, EFAS – European Flood Awareness System, EFIS – ECO Frequency Information System etc.) and the national early warning systems (e.g. hydro-meteorological data), which will be upgraded into an operational tool for disaster response. The risk atlas will aim to cover the most relevant types of hazard for the region. The data will be ideally shared between all levels of government, private and non-profit sector and the academia.

PROBLEM AND STAKEHOLDER ANALYSIS

Albania

Albania has an old risk assessment dating back from 2004, which will need to get updated and further developed. While being reviewed the assessment could be also improved in terms of comprehensiveness and consistency with the EU guidelines on risk assessment and mapping, and with EU best practices. Albania has developed recently a disaster loss database following the DesInventar methodology supported by UNISDR (United Nations Office for Disaster Risk Reduction). However, work has to be continued mainly through the collection of still missing data and inter-institutional cooperation and coordination. Furthermore, the database was established without a legal framework for the disaster loss data gathering. Preparing such a legal base will be one of the objectives of the Ministry of Interior for the coming years.

Bosnia and Herzegovina

In May 2014, severe weather and devastating floods hit entire regions of Bosnia and Herzegovina, resulting in several dozens of casualties in the country, causing the destruction of public and private infrastructures, as well as hitting hundreds of thousands of households. According to the joint UN, EU and WB recovery needs assessment damages and economic losses amount to around EUR 2.04 billion in Bosnia and Herzegovina. The floods are estimated to have caused the equivalent of nearly 15 % of GDP in damages. The recovery needs assessment refers at multiple occasions to the needs of the country regarding risk assessment studies (hydrological and geological studies, exposure assessment), hazard maps, event documentation, torrent and landslide databases³.

Bosnia and Herzegovina completed a national Risk Assessment back in 2011. The Ministry of Security which is the focal point for national platform on Disaster Risk Reduction and contains the Protection and Rescue Sector which is the national civil protection authority sees the need for further development of the risk assessment and its alignment with the emerging changes. At the state level, there is no national legislation or national methodology on disaster loss data gathering. State-level institutions do not assess the damage caused by disasters; it is the responsibility of the entity institutions. The ministry therefore would strongly support activities on establishing a common methodology for data collection, and considers that its further development is needed.

In Bosnia and Herzegovina there are specific maps created and used by different institutions (e.g. the Water Agency) but there is no national mapping combining different hazards or atlas in electronic form available in the country. The Ministry of Security recognizes the need for developing a national risk atlas which would not only help the civil protection activities during disaster response but would help as well the drafting of legislation in the field of protection and rescue in Bosnia and Herzegovina.

The former Yugoslav Republic of Macedonia

The former Yugoslav Republic of Macedonia developed a hazard assessment in the year 2007, which was adopted by the Government as a first step towards the development of the national risk assessment. The risk assessment methodology was developed back in 2006 and it is now considered obsolete. Through the adoption of the new Strategy for Rescue and Protection by the Parliament in 2014 there was however a new commitment of the renewal of the national risk assessment based on

³ BiH still lacks modelling tools that are useful for probabilistic and scenario analysis and interactive GIS based tools that are important for visualisation and communication of risks. Given BiH's exposure to multiple hazards, a national level

multi-hazard risk modelling tool should be developed. The model should have regional modules aligned with decision

making in BiH. The work under this component should include (i) probabilistic generation of all hazards, (ii) development of an asset and population exposure database and (iii) determination of the vulnerability of different asset types. This would allow estimation of monetary losses for each municipality, canton, entity or geographical area covered. The understanding of potential economic losses would help the country review physical, human, and financial exposures; in prioritizing mitigation investments and in updating emergency plans and procedures and developing appropriate capacity building programmes.

the EU guidelines on risk assessment. As the process of risk assessment involves a number of actors on different levels, there is a need for harmonization of the efforts of all actors in the country which is especially challenging given the complex national disaster management system. The membership of the former Yugoslav Republic of Macedonia in the Union Civil Protection Mechanism will be renewed in the beginning of 2015. As a Participating State to the Mechanism the country will have to comply with the risk assessment requirements in the new EU civil protection legislation and therefore timely support in that aspect would be of immediate application.

The former Yugoslav Republic of Macedonia lacks a national methodology for disaster loss data gathering. It has however adopted a national law for the creation of Inventory on Spatial Planning where data on natural and man-made disasters would be included. There has not been any involvement in the creation of a national risk map and therefore there is a need to further develop this area.

Kosovo

Kosovo has adopted in 2008 Administrative instructions⁴ on the methodology of drafting of risk assessment and plans for the protection and rescue. On the bases of these instructions the first national risk assessment was developed in 2009. At the end of 2014 Kosovo will be reviewing the national risk assessment document and specifying the needs for further development and support to be provided for the national authorities to strengthen their capacities in risk assessment. The methodology might need further improvement following the EU guidelines on risk assessment and mapping, EU and regional good practices and trends.

The Emergency Management Agency of Kosovo, supported by the UNISDR, the UNDP and the OSCE(Organization for Security and Co-operation in Europe), has initiated work on the establishment of a Disaster Inventory Management System (DesInventar). The process has just started and will require time and resources in order to achieve good quantitative and qualitative input in the database. Another issue which Kosovo faces is the lack of access to disaster related data from before 1999. The current IPA II Action Programme which will work as a facilitator for data exchange at the regional and European levels should be in a position to contribute to the coverage of this gap.

Regarding risk mapping relevant Kosovo institutions have their own maps for specific risks but there is no encompassing GIS (Geographical Information Systems) map or risk atlas. The potential for Kosovo to benefit from support for improvement/updating of the existing maps and their consolidation into a GIS system could be considered huge.

Montenegro

Montenegro is in the process of joining the Union Civil Protection Mechanism. The Agreement for participation has been signed on 29th September 2014 and will come into effect once Montenegro completes the national ratification procedure. As a new member of the Mechanism to which the same requirements apply as to EU Member States the issue of qualitative accomplishment of national risk assessment has become of high importance for the Directorate for Emergency Management within the Ministry of Interior.

In Montenegro the adoption of National Strategy for Emergencies in 2006 and the Law on Protection and Rescue in 2007 led to the development of risk assessment on company, local and national level and to the development of plans for protection on all three levels. The Directorate for Emergency Management further issued a Rulebook on methodology for the development of threat assessment studies of natural, technical-technological and other disasters. The country has developed twelve national and seventeen municipal plans for protection and rescue from a number of different hazards. The risk assessment and the municipal plans for protection and rescue from floods integrate a GIS

⁴ <http://gzk.rks-gov.net/ActDocumentDetail.aspx?ActID=7655>

database as well as mapping of all the endangered areas with the description of endangered households, objects, traffic infrastructure and agricultural land.

However Montenegro is still lacking is national legislation and methodology on disaster loss data gathering, a risk atlas and a Geographical Information Systems (GIS) in their emergency operational centre. A UNDP/WMO (World Meteorological Organisation) study⁵ from 2011 stipulates that data is scattered amongst various players and no formal mechanism has been developed to store or access it. There is no central depository of hazard-related data, no data storage bank to facilitate data collection and dissemination. Beyond hazard-related data, vulnerability and capacity maps are not existent. Information sharing needs to be improved and systematized.

From an operational point of view, processes need to be improved to strengthen the analytical capacities of the different actors by introducing modern technologies of analysis, such as numerical modelling and GIS. Many documents such as the sectoral National Emergency Plans (National Plan for Protection from Earthquakes etc.) still show little evidence of comprehensive risk assessment including vulnerability, hazard and capacity considerations.

Serbia

In Serbia, the establishment of the Sector Emergency Management in its current structure, adoption of the Law on Emergency Management (2009) as well as the adoption of the National Strategy on Protection and Rescue in Emergency Situations (2011) all led to the development of risk assessment at local, regional and national level, and to the development of protection and rescue plans on all three levels accordingly. During the process of the preparation of the risk assessment Serbia used the EU guidelines for risk assessment. The country has established a database of disaster losses using the UNISDR developed tool DesInventar however further input with relevant data is still in progress.

In May 2014, severe floods affected also 24 municipalities in Serbia resulting in €1.7 billion of damages and losses. Real economic growth is expected to decline by 0.5% in 2014, instead of the 0.5% positive growth forecasted before the disaster. According to the recovery needs assessment, Serbia has limited data on the impact of past disaster events. Despite Serbia's recurrent experience with adverse natural events, the total fiscal and economic impact of these events has not been systematically assessed.

There is a need for generating more information on risk. While a number of geographic and hazard specific assessments have been conducted (for example, in the Danube river basin to abide by the EU Floods Directive), there has been no comprehensive national level risk assessment. Sharing and communicating risk information among stakeholders remains limited. Risk assessments are inherently multi-institutional, and no single agency can be solely responsible for generating, communicating, and using risk information. This will require strengthening Serbia's institutional mechanism and policies on sharing spatial data and other risk information among stakeholders.

Turkey

The UNDP/WMO Disaster Risk Reduction Capacity Assessment Report⁶ from 2011 made a few recommendations for Turkey of which:

1) To develop country-tailored models for vulnerability and risk mapping, assessment and analysis. Organize training of technical personnel at central and regional level for vulnerability and risk mapping and assessments. Perform vulnerability and risk mapping and assessments in a pilot area to

⁵ IPA Beneficiary Country Needs Assessment Montenegro; <http://www.gripweb.org/gripweb/?q=countries-risk-information/documents-publications/ipa-beneficiary-needs-assessment-montenegro>

⁶ <http://www.gripweb.org/gripweb/sites/default/files/Turkey%20DRR%20Cap%20Ass%20Report%20.pdf>

test the tool and competencies of assessors. This exercise should also help define multi-hazard priority disaster risk areas in Turkey.

2) To conduct proper risk assessments in all regions of Turkey in order to compile a comprehensive risk profile. This will then be presented to national authorities to serve as guidance to influence decision making in terms of mainstreaming DRR (Disaster Risk Reduction) into the development processes.

Since 2011 Turkey has initiated a pilot project in Bursa city for preparing a disaster hazard map; when finalised the objective is to apply the methodology and extend the mapping to the whole country. Currently Turkey is working also on the establishment of Turkish Disaster Data Bank (TABB) devoted to the creation of an electronic disaster library accessible via internet. The country does not have yet an integrated national risk assessment. Instead, there are a number of specific risk assessments aiming at particular risks and locations.

Besides, since 2012 there are also studies focused on flood risk assessment and management, begun with capacity building project (TR10IBEN01) and continued with Basin Flood Management Plan projects. Projects includes as main steps; performing preliminary flood risk assessment, determining areas with significant flood risk, preparation of flood hazard maps & flood risk maps, preparation of basin flood database and preparation of flood management plan for the basin. As of February 2015, there are two ongoing projects (Yeşilirmak and Antalya Basins) and finalizing the studies in all basins till the end of 2023 is being planned according to the roadmap.

RELEVANCE WITH THE IPA II MULTI-COUNTRY STRATEGY PAPER AND OTHER KEY REFERENCES

Civil protection is addressed under chapter 2 of the Multi Country Indicative Strategy Paper 2014-2020 – Regional structures and network within the environment and climate action priority. Under chapter 2.1 – Needs and capacities it is stated that regional capacity building programmes based on cooperation with the Mechanism should ensure countries' preparedness to join the Mechanism and their future integration. Chapter 2.2 – Objectives, results, actions and indicators sets the objective that as regards civil protection, support will be considered to implement the EU legislation and to integrate the countries into the Union Civil Protection Mechanism (the Mechanism)⁷.

In addition, the 2014 Communication on enlargement strategy stipulates the following:

The Western Balkans and Turkey are exposed to a wide range of disasters and it is expected that the impact of climate change, accompanied by changes in land-use patterns, will increase disaster risk in the coming years. Disasters already have a significant impact on the economic standing of the region. Disaster damages and losses affect countries' capacity to achieve a long term sustainable development and diminish their potential for economic growth. Most countries continue to have difficulties integrating risk reduction into public investment planning, urban development, spatial planning and management, and social protection. Without significant efforts to ensure the integration of effective disaster risk management policy into the economic policies countries will not mitigate the risk of losing further productive capacities or having unsustainable investments.

LESSONS LEARNED AND LINK TO PREVIOUS FINANCIAL ASSISTANCE

The project builds on experiences gained in the implementation of the Union Civil Protection Mechanism. In 2011, the European Council asked the European Commission to develop an overview of the risks⁸ the EU may face in the future based on national risk assessments. The overview⁹ was

⁷ The Union Civil Protection Mechanism was established under the Decision No1313/2013/EU of the European Parliament and of the Council of 17 December 2013

⁸ Council conclusions on Further Developing Risk Assessment for Disaster Management within the European Union, 3081st JUSTICE and HOME AFFAIRS Council meeting Luxembourg, 11 and 12 April 2011

⁹ <http://publications.jrc.ec.europa.eu/repository/bitstream/11111111/29598/1/lb-na-25822-en-n.pdf>

produced in 2013 based on the contributions of 12 countries and came up with a number of lessons learnt and recommendations regarding the establishment of comprehensive risk assessment and mapping across the EU for various type of disasters. Among the conclusions of the study is that comparability of data is an issue, as the national approaches and methodologies differ among the countries. It also appears that many countries produce hazard maps but not necessarily risk maps identifying hazards in association with vulnerabilities. These will be also issues addressed by the current IPA II Action Programme on risk assessment and mapping.

To establish Good Practice guidelines that build upon existing knowledge, the European Commission has launched a programme¹⁰ entitled “Strengthening the EU disaster management capacity – Good Practices on Disaster Prevention”. The programme collected information from all EU Member States across natural and manmade disasters regarding measures taken to prevent disasters and reduce vulnerability. With the understanding that prevention programmes for different disaster risks can benefit from a more integral approach, the European Commission has particularly focused on identifying horizontal measures in the area of disaster loss data collection, risk assessment and mapping. The study as well as the established database with good practices is to be utilised for the capacity building activities of the current Action Programme.

This Action Programme complements and continues the support previously provided to the EU candidate countries and potential candidates in the field of disaster risk management under IPA Multi-beneficiary, either in the area of civil protection under IPA MB 2009 and IPA MB 2012 Annual Programmes, or in the area of disaster risk reduction under IPA MB 2011. It also considers the findings of the Regional Programme on Disaster Risk Reduction in South-East Europe implemented under the IPA MB 2008 Annual Programme (e.g. IPA Beneficiary Country Needs Assessments).

IPA MB 2011 project "Building Resilience to Disasters in Western Balkans and Turkey" was completed in October 2014 and worked towards reducing vulnerability of IPA II beneficiaries to natural disasters and increase their resilience to climate change. Two major results of the Action Programme are the designing of a regional Multi-Hazard Early Warning System and the establishment of an online Knowledge Management System (KMS) available at <http://seekms.dppi.info/>. The site has been populated with information and knowledge products from multiple stakeholders in IPA beneficiary countries and hosted by the Disaster Preparedness and Prevention Initiative for South Eastern Europe (DPPI SEE). The IPA II beneficiaries have therefore the option to further use this Knowledge Management System (KMS) for the sharing of the disaster losses data to be collected and compiled during the current project. In addition, if the designed Multi-Hazard Early Warning System becomes operational it should be linked to the Electronic Regional Risk Atlas.

The IPA II Action Programme on risk assessment and mapping will utilise also the results of the ongoing IPA 2013 on flood prevention, preparedness and response which has a component supporting the beneficiary countries in their approximation to the EU Flood Directive and which is targeting the accomplishment of a complete preliminary floods risk assessment map for the region.

The Programme for Prevention, Preparedness and Response to natural and made-mad disasters in the Eastern Neighbourhood (PPRD East) financed by the European Neighbourhood Instrument has achieved comprehensive results in the establishment of Electronic Regional Risk Atlas for the six beneficiary countries (Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine) during its first phase of implementation (2010-2014) and will continue improving and further developing the Atlas during the next phase (2015-2018). The current IPA II Action Programme will fully take into account the methodology¹¹ used in the PPRD East programme and the lessons learnt in order to create synergies and consistency, and to profit from the gained experience.

¹⁰ http://climate-adapt.eea.europa.eu/viewaceitem?aceitem_id=7215

¹¹ In the PPRD East programme the ERRA was designed to act on three levels – regional, sub-regional and national. This approach allowed each country to select their own strategy and approach to data management at the national level based on

The DPPI SEE will be involved in the current Action Programme. Launched in November 2000 under the Stability Pact, DPPI is intended to play a key role in ensuring a cohesive regional development in the area of disaster preparedness and response and, given its mandate and role, has been a key partner in implementation of the programmes mentioned above. DPPI will serve as a hub for collecting information about other relevant activities in the region which can be a source for information and data for the development of the national risk assessments and databases, and will offer a platform for exchanges between the IPA beneficiaries and the EU Member States participating in DPPI (e.g. Bulgaria and Romania).

The new IPA Action Programme on risk assessment and mapping was presented for consultation and discussion at the XXVIII DPPI SEE Regional Meeting, Podgorica, 23-24 April 2014¹². A concept note on the Action Programme was circulated in advance to the meeting in order to facilitate the discussion and allow for the countries to prepare their views. The present Directors-General for civil protection and other countries' representatives expressed positively about the Action Programme and confirmed their engagement.

EU Danube Strategy is an internal strategy for the Member States to address the problems of the Danube region but it also involves non-EU members from the Western Balkan – Bosnia and Herzegovina, Montenegro and Serbia. The objectives of priority axis 5 "Environmental risks" of the EU Danube Strategy are mainly related to developing a flood management plan for the whole river basin, climate change related impacts on risks, further strengthening of the early warning tools, strengthening operational cooperation among civil protection authorities in the Danube countries, etc. The Strategy aims at aligning existing funding to its objectives and has no additional dedicated funding mechanisms created for its implementation.

SEERISK is a transnational project called "Joint Disaster Management risk assessment and preparedness in the Danube macro-region." The project is co-funded by the EU and the consortium comprises 20 project partners representing 9 countries, namely Austria, Slovakia, Hungary, Croatia, Serbia, Romania, Bulgaria, Slovenia and Bosnia and Herzegovina. The consortium is coordinated by the National Directorate General for Disaster Management (NDGDM) from Hungary. One of the main aims of SEERISK is developing and testing a Common Risk Assessment Methodology for the region of which the most tangible outcomes are risk assessments and maps for 6 pilot areas.

The International Sava River Basin Commission (ISRBC) has been established with the objective to boost transboundary cooperation for sustainable development of the region and involves Bosnia and Herzegovina, Croatia, Serbia and Slovenia. Among others ISRBC aims at establishing sustainable water management, which would provide for protection against detrimental effects of water (flooding, excessive groundwater, erosion and ice hazards). Both the SEERISK and ISRBC are in process or have already produced local flood risk assessments and maps which should be integrated in the work of the current Action Programme.

their security requirements. It also allowed them to have common data management at regional and sub-regional level for the summary of data. The ERRA in the PPRD East region consists of two main components – 1) the base map layers such as digital elevation model, boundaries of settlements and communities, road network, river network, infrastructures, critical facilities as well as the resource layers (fire stations, hydrants, sand sacks, etc.) and 2) specific Risk Assessment layers (hazard maps, risk maps, vulnerability etc.).

ERRA in the PPRD East programme was developed through development of risk maps (regional approach, 5 types of hazards – floods, wild fires, earthquakes, landslides, man-made/technological) and the development of the actual risk atlas. The PPRD East team went through a number of different steps in order to develop the risk maps. Firstly, an agreement on the approach to risk mapping was approved, followed by the definition of the methodology (GIS guidance). As next, local experts of each country together with the PPRD team carried out the mapping based on the agreed methodology. Lastly – throughout the final risk mapping – results from each country were analysed. Following the three level approach mentioned above, on the national level mapping was done in the best data available scale as quantitative maps. On the sub regional and regional level, results from the national level were accumulated and transformed into qualitative maps per higher administrative units (regions). All these results were incorporated into the ERRA.

¹² <http://www.dppi.info/programmes-activities/meetings/xxviii-dppi-see-regional-meeting>

2. INTERVENTION LOGIC

LOGICAL FRAMEWORK MATRIX

OVERALL OBJECTIVE	OBJECTIVELY VERIFIABLE INDICATORS (OVI)	SOURCES OF VERIFICATION	
To increase beneficiaries' capabilities to ensure proper disaster risk management at national, regional and EU levels.	Quality of structures and systems in place for disaster risk management and for cooperation at national, regional and EU levels.	Laws, regulations, policies and procedures at national level Official documents from the governments or national civil protection authorities Beneficiaries' submissions to European Commission in compliance with Art 5 of the EU civil protection legislation. Action Programme reports	
SPECIFIC OBJECTIVE	OBJECTIVELY VERIFIABLE INDICATORS (OVI)	SOURCES OF VERIFICATION	ASSUMPTIONS
Effective, coherent and EU oriented national systems for disaster loss data collection, risk assessment and mapping, and approximation and integration into the Union Civil Protection Mechanism.	Quality of the national systems for disaster loss data collection, risk assessment and mapping, and their proximity to the EU policy framework and good practice. Progress on integration into the Union Civil Protection Mechanism.	Same as above	Political stability within countries Absence of major tensions between countries Commitment to approximation to the EU and integration into the Union Civil Protection Mechanism
RESULTS	OBJECTIVELY VERIFIABLE INDICATORS (OVI)	SOURCES OF VERIFICATION	ASSUMPTIONS

<p>Result 1:</p> <p>Further developed and improved national systems for disaster loss data collection based on the EU guidelines and good practices; Modalities for regional data sharing and linkages to European or global disaster loss databases are established.</p>	<p>Establishment and improvement of national disaster loss data (e.g. populated with missing data) compared to a baseline identified at the beginning of the Action Programme for each Beneficiary.</p> <p>Number of entries into the databases.</p> <p>Number of beneficiaries adopting/improving legislation, procedures or methodology for disaster loss data collection and processing.</p> <p>Improvement of the disaster loss data available and accessible at national, regional and European levels.</p>	<p>Laws, regulations, policies and procedures at national level</p> <p>Official documents from the governments or national civil protection authorities</p> <p>National databases</p> <p>Regional platforms for information sharing and European or global disaster loss databases.</p> <p>Statistical data at national and international level.</p>	<p>Willingness of countries to share information (disaster loss data and risk assessments).</p> <p>Participants in each action of the Action Programme are selected based on criteria objective and relevant for the action concerned (participant profile tailored to the specifics of the action).</p> <p>Timely availability of relevant participants in the Action Programme ensured by all beneficiaries.</p>
<p>Result 2:</p> <p>Further developed and improved national risk assessments following EU guidelines and good practices, in particular including identification of risks of cross-border and regional aspects. The accomplishment of national risk assessments should lay the foundations for improving the national risk management planning and risk management capabilities assessments.</p>	<p>Development of the Beneficiaries capacities with the EU good practices in the area of risk assessment in parallel with support to actions to put them into practice.</p> <p>Revision and improvement of the national risk assessments according to EU guidelines and good practices, and an Action Plan agreed at the beginning of the Action Programme for each Beneficiary.</p> <p>High quality summary of the relevant elements of national risk assessments submitted by the beneficiaries to the</p>	<p>Official documents from the governments or national civil protection authorities</p> <p>Action Programme reports</p> <p>European Commission reports – overview of risks in Europe</p>	

	European Commission in line with Article 6 of the Union Civil Protection Mechanism legislation.		
<p>Result 3:</p> <p>Further developed and improved national and regional risk mapping, and establishment of Electronic Regional Risk Atlas (ERRA).</p>	<p>Number of most relevant types of hazards which are covered by ERRA.</p> <p>Number of Beneficiaries which install ERRA in their emergency response centres and in at least one more national institution/ministry/agency.</p> <p>National staff is knowledgeable and prepared how to operate ERRA for disaster prevention, preparedness and response activities.</p> <p>Level of utilisation of ERRA by the Beneficiaries for disaster prevention, preparedness and response activities.</p>	<p>ERRA</p> <p>Action Programme reports</p> <p>Observation during project activities.</p>	
ACTIVITIES	MEANS	OVERALL COST	ASSUMPTIONS
<p>Activities to achieve Result 1:</p> <p>To make analysis and prepare recommendations on the national legislation and national methodology on disaster loss data gathering and processing in the beneficiaries, and its consistency with the European approach and guidelines.</p> <p>To provide technical support for the implementation of the recommendations and for the establishment/improvement of national disaster loss databases by ensuring common regional approach compatible with EU developments in this field.</p> <p>To facilitate the regional data sharing and the linking of the national disaster loss data to European or global disaster loss</p>	Service contract	EUR 3 million	If Activities are completed, what assumptions must hold true to deliver the Results

<p>databases (e.g. EMDAT).</p> <p>Activities to achieve Result 2:</p> <p>To design and conduct capacity-building programme for the beneficiaries to develop and further improve risk assessments at national or appropriate sub- national level in line with Article 6 of the Union Civil Protection Mechanism legislation¹ following the EU guidelines on risk assessment and mapping as well as EU good practices.</p> <p>To provide technical support to the beneficiaries for the development and further improvement of their national risk assessments and identification of risks of cross-border and regional aspects.</p> <p>To facilitate the beneficiaries in making available to the European Commission a high-quality summary of the relevant elements of their risk assessments in line with Article 6 of the Union Civil Protection Mechanism legislation.</p> <p>Activities to achieve Result 3:</p> <p>To collect existing national and regional risk data and maps, analyse the consistency of the applied methodologies, identify gaps and provide recommendations for improvement by ensuring common regional approach compatible with EU guidelines and good practices.</p> <p>To provide technical support for the further development of</p>			
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¹ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:347:0924:0947:EN:PDF>

national risk maps to cover at least 5 hazard types which are most relevant for the region.

To establish an Electronic Regional Risk Atlas (ERRA) as a combination of hazard maps with vulnerability and asset maps, linked to the national early warning systems and European monitoring tools, with the capacity to assess the potential impact of disasters and monitor the real time progression of disaster, and provide inputs to determine the most effective use of resources and funds.

To provide trainings for the duty officers and other relevant staff how to use ERRA.

ADDITIONAL DESCRIPTION

During the Inception phase of the Action Programme (6 months) the contractor will be expected to make a thorough overview of the state of play in each IPA Beneficiary regarding national risk assessment and mapping, and disaster loss databases with corresponding national legislation/procedures/methodology which will serve as a baseline for the Action Programme. Based on the collected information the contractor should make assessment of the needs vis-à-vis the achievement of the expected results by this Action Programme. If additional needs are identified which are not to be addressed here they should be nevertheless included in the analysis for future considerations by the Beneficiaries and the European Commission.

On the basis of the needs assessment the contractor should elaborate national Plans of Action with recommendations for improvement and concrete activities to be undertaken in the framework of this Action Programme. Each Plan of Action is to be agreed with the corresponding Beneficiary and with the Contracting Authority.

The contractor will be expected to make available to the Beneficiaries three types of services:

- Capacity building component based on the EU guidelines and good practices, and EU Member States' experience which can include interactive workshops, case studies, exchange of experts and trainings (e.g. for ERRA). This component should envisage strong presence by the EU Member States' authorities responsible for risk assessment and mapping, and disaster loss data collection, and should aim at contributing to enhanced communication and cooperation among the different relevant institutions and stakeholders in the Beneficiaries.
- Provision of legal and technical advice regarding revision of the national risk assessments/methodologies/procedures/national legislation and provision of support for the elaboration and drafting of the corresponding documents.
- Collection and compilation of existing national and regional risk data and maps by ensuring consistency of the applied methodologies; provision of resources and technical support for the collection and processing of still missing disaster loss data and further development of national risk maps to cover at least 5 hazard types which are most relevant for the region. Establishment of the Electronic Regional Risk Atlas (ERRA) as a combination of hazard maps with vulnerability and asset maps, linked to the national early warning systems and European monitoring tools, and its installation in at least two intuitions per Beneficiary.

3. IMPLEMENTATION ARRANGEMENTS

ROLES AND RESPONSIBILITIES

Albania: Inter-Ministerial Committee for Civil Emergencies (Ministry of Interior), Institute of Energy, Water and Environment (IEWE)

Bosnia and Herzegovina:

- State level: Ministry of Security-Protection and Rescue Sector, Ministry of Civil Affairs, Bosnia and Herzegovina-Sector for Geodetic, Geological and Meteorological Affairs, Ministry of Foreign Trade and Economic Relations- Sector for Natural Resources, Energy and Environment Protection (Department for Water Resources)
- Republika Srpska: Ministry of Agriculture, Forestry and Water Management, Republic Hydro-meteorological Institute of Republika Srpska, Republika Srpska Water Agencies, Republika Srpska

Ministry of Interior, Republic Administration of Civil Protection of Republika Srpska, Civil Society (NGOs, academic community)

– Federation of Bosnia and Herzegovina: Federal Ministry of Agriculture, Water Management and Forestry, Agency for River Sava Basin, Agency for Adriatic Sea Water Basin, Federal Hydro meteorological Institute, Federal Civil Protection Administration of Federation of Bosnia and Herzegovina, Civil Society (NGOs, academic community)

- The former Yugoslav Republic of Macedonia: Protection and Rescue Directorate, Crisis Management Centre, Republic Hydro-meteorological Service

Kosovo*: Emergency Management Agency, Department of Waters within the Ministry of Environment and Spatial Planning, Kosovo Hydro-meteorological Institute (part of the same Ministry)

Montenegro: Sector for Emergency Situations and Civil Protection (Ministry of Interior), Hydrometeorological Institute of Montenegro

Serbia: Sector for Emergency Situation of Ministry of Interior and Hydro-meteorological Service of the Republic of Serbia

Turkey: Prime Ministry Disaster and Emergency Management Presidency (AFAD), Disaster and Emergency Management Provincial Directorates (governorships) and Ministry of Forestry and Water Affairs-General Directorate of Water Management, General Directorate for State Hydraulic Works and General Directorate of Meteorological Services.

IMPLEMENTATION METHOD(S) AND TYPE(S) OF FINANCING

The Action Programme will be cross sub-delegated to DG ECHO for contracting and implementation. The Action Programme will be implemented through a service contract (after a restricted call for tender).

The contract will be awarded to a consortium consisting of at least one public body from of at least one Participating States to the EU Civil Protection Mechanism exercising civil protection responsibilities on nation-wide basis as a central authority or agency acting for the account and under the responsibility of the state. The duration of the contract will be 3 years.

A Steering Committee will be established with at least 2 representatives from the Beneficiaries, one of which should be from the national civil protection authority. The Committee will support and supervise the implementation of the Action Programme by giving general direction, concrete advice and feedback on already implemented activities.

The project will be implemented in cooperation with the Joint Research Centre of the European Commission, the Regional Cooperation Council (RCC) and the Disaster Preparedness and Prevention Initiative for South Eastern Europe (DPPI SEE). They will be also involved as members of the Steering Committee.

4. PERFORMANCE MEASUREMENT

METHODOLOGY FOR MONITORING (AND EVALUATION)

From the EU side, the contract execution is monitored through regular reports (6-month progress reports and final – narrative and financial reports), clearly identified milestones linked to each component of the Action, regular meetings with the contractor by the task manager and participation in Steering Committee meetings, peer reviews, evaluations to measure the progress of indicators and the overall performance framework. The invoices are presented to the Contracting Authority accompanied by the necessary detailed reports reflecting the Action developed and the actual cost items accompanied by the necessary justifications and any other supporting documents.

In addition, the Contracting Authority will hire an external evaluator for an interim or final evaluation of the Action Programme.

INDICATOR MEASUREMENT

Indicator	Baseline (2014) (2)	Milestone 2017(3)	Target 2020	Source of information
Quality of the national systems for disaster loss data collection, risk assessment and mapping, and their proximity to the EU policy framework and good practice.	To be assessed in Q3 2016	To be set up in Q3 2016		Action Programme reports Countries' progress reports Statistical data at national and international level DG ECHO European Commission reports – overview of risks in Europe
Establishment and improvement of national disaster loss data (e.g. populated with missing data) compared to a baseline identified at the beginning of the Action programme for each Beneficiary. Number of entries into the databases.	To be assessed in Q3 2016	Minimum 30% decrease of missing data		Action Programme reports Countries' progress reports Statistical data at national and international level.
Number of beneficiaries adopting/improving legislation, procedures or methodology for disaster loss data collection and processing.	Not available	4		Action Programme reports Countries' progress reports Official documents from the governments or national civil protection authorities
Availability and accessibility of disaster loss data at national, regional and European levels.	To be assessed in Q3 2016	To be set up in Q3 2016		Action Programme reports, Regional platforms and European or global disaster loss databases
Relevant staff in the Beneficiaries are familiar with the EU good practices in the area of risk assessment and have been supported to initiate actions to put them into practice	Target groups to be assessed in Q3 2016	Full outreach to relevant actors		Action Programme reports
Beneficiaries have	To be assessed in Q3	To be set up in Q3 2016		Action Programme reports

revised/improved their national risk assessments according to EU guidelines and good practices, and an Action Plan agreed at the beginning of the Action Programme for each Beneficiary.	2016			Countries' progress reports
Number of most relevant types of hazards which are covered by ERRA	Not available	5		Action Programme reports ERRA
Number of Beneficiaries which install ERRA in their emergency response centres and in at least one more national institution/ministry/agency.	Not available	6		Action Programme reports ERRA
National staff is knowledgeable and prepared how to operate ERRA for disaster prevention, preparedness and response activities.	Not available	Roster of experts for 24/7 operations		Action Programme reports, Countries' reports
Level of utilisation of ERRA by the Beneficiaries for disaster prevention, preparedness and response activities.	Not available	ERRA becomes operational tool for disaster response and supports decision making for disaster prevention and preparedness.		Countries' standard operational procedures, National ERRA updates, Evidence for the use of ERRA doing emergencies.

(1) This is the related indicator as included in the Indicative Strategy Paper (for reference only)

(2) The agreed baseline year is 2010 (to be inserted in brackets in the top row). If for the chosen indicator, there are no available data for 2010, it is advisable to refer to the following years – 2011, 2012. The year of reference may not be the same either for all indicators selected due to a lack of data availability; in this case, the year should then be inserted in each cell in brackets. The baseline value may be "0" (i.e. no reference values are available as the Action represents a novelty for the beneficiary) but cannot be left empty or include references such as "N/A" or "will be determined later".

(3) The milestone year CANNOT be modified: it refers to the mid-term review of IPA II.

(4) The target year CANNOT be modified.

(5) This will be a useful reference to continue measuring the outcome of IPA II support beyond the 2014-2020 multi-annual financial period. If the Action is completed before 2020 (year for the performance reward), this value and that in the 2020 target column must be the same.

5. CROSS-CUTTING ISSUES

ENVIRONMENT AND CLIMATE CHANGE (AND IF RELEVANT DISASTER RESILIENCE)

The Action Programme relates and positively contributes to the protection of environment, as it will contribute to better prevention, preparedness and response to natural and man-made disasters, which often have severe negative consequences for the environment. The establishment of national disaster loss databases, national risk assessments and mapping will not only facilitate disaster response and thus will diminish the impact on population, environment and infrastructure, but more importantly it will enhance disaster risk reduction including climate change adaptation/mitigation measures by improving the awareness and understanding of the risks a country faces and by facilitating the decision makers, stakeholders and other parties to prioritise and allocate investments in almost all sectors of the economy.

ENGAGEMENT WITH CIVIL SOCIETY (AND IF RELEVANT OTHER NON-STATE STAKEHOLDERS)

Civil society benefits indirectly and directly from the establishment of national risk assessments, disaster losses databases and Electronic Regional Risk Atlas. Increasing the public awareness about the risks is a first substantial step towards better individual preparedness to react in the case of emergencies. Access to information about past disasters and their impacts as well as the vulnerability of the area of residence can contribute to more effective choices in terms of private investments, purchasing of insurances and taking preventive measures at household and community levels.

Some NGOs are engaged in promoting public awareness to risks and preparing communities and volunteers for disaster response actions. Their capacities (as the ones of Red Cross for example) are part of the national system for disaster preparedness and response. NGOs could contribute to the elaboration of national risk assessments and data collection, since they could be in possession of specific information or expertise. The NGOs themselves could also promote and further distribute the results of this Action Programme at local level. When identifying the action plan for each country the contractor of the Action Programme should take into account the role and capacities of relevant national NGOs and if there is potential for meaningful involvement in the implementing activities.

EQUAL OPPORTUNITIES AND GENDER MAINSTREAMING

The principle of equal opportunities should be taken into account when designing the Terms of reference and evaluating the quality of the tenders. Specific attention will be paid to this dimension when determining who will benefit from capacity building activities, training events, exchange of experts etc.

MINORITIES AND VULNERABLE GROUPS

The project will not allow for any discrimination, be it related to minorities or other issues.

6. SUSTAINABILITY

The maintenance of national disaster losses databases should be incorporated in the national legislation/procedures and should be a part of the regular activities of the relevant institutions and stakeholders.

By becoming members of the Union Civil Protection Mechanism the countries will have to comply with the requirements in the EU civil protection legislation regarding risk assessment and provide to the European Commission with an update on their national risk assessment every 3 years. This will ensure a continuity of the action and will be an incentive for further improvements.

Similarly to the EU Member States for which risk assessment has become an ex-ante conditionality for obtaining support from the EU Cohesion Fund, national risk assessments of the IPA Beneficiaries should be consulted once EU funds are to be invested in infrastructure, urban or rural development. The Electronic Regional Risk Atlas will be also an useful instrument for integrating risk reduction into public investment planning and for ensuring the sustainability of the investments.

In order for the Electronic Regional Risk Atlas to stay functional and up-to-date also after the completion of the project the IPA Beneficiaries will have to upload on regular basis modifications or new data when becoming available. The procedure for keeping the atlas updated will be elaborated as a part of this Action Programme and agreed with the countries before handing over to each of them the national components of ERRA. The regional component of the atlas could be hosted by the JRC which (in exceptional cases) could also have the possibility to introduce new data upon the agreement of the national authorities.

The DPPI SEE as the regionally owned network of the civil protection authorities and by having an overview of the regional activities and projects, and some national developments can serve as a facilitator steering all new information emerging through different initiatives to the national authorities responsible for the maintenance of ERRA so that the risk atlas is continuously updated and improved.

The same commitment is to be made by the European Commission. All relevant EU-funded environmental and disaster management projects and programmes should follow the requirement of making new data and analysis available for ERRA.

7. COMMUNICATION AND VISIBILITY

Communication and visibility will be given high importance during the implementation of the Action. All necessary measures will be taken to make public the fact that the Action has received funding from the EU in line with the Communication and Visibility Manual for EU External Actions.

The implementation of the communication activities shall be the responsibility of the contractors and shall be funded from the amounts allocated to the Action.

Visibility and communication actions shall demonstrate how the intervention contributes to the agreed Action Programme objectives. Actions shall be undertaken to strengthen general public awareness and promote transparency and accountability on the use of funds.

The European Commission shall be fully informed of the planning and implementation of the specific visibility and communication activities.