



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

BOSNIA AND HERZEGOVINA

Support to Flood Protection and Flood Risk Management



Action Summary

The Action supports the development of integrated flood risk management in Bosnia and Herzegovina observing the cornerstone relevant European Union Floods Directive and the Action Plan for Flood Protection and Water Management developed by an ad-hoc Working Group gathering all relevant stakeholders.

The Action envisaged under IPA II 2016 aims to enhance the preparedness level for protection from harmful effects of waters in BiH by means of non-structural measures divided in two components: Component 1. Flood Risk Management Plans development as the last step of fulfilling requirements stipulated by the EU Flood Directive, and Component 2. Specific support to infrastructure project preparation to help beneficiaries bring flood protection projects to full maturity.

THIS SECTION SHOULD BE FILLED IN BY THE EU DELEGATION/EU OFFICE

Action Identification	
Action Programme Title	Annual Action Programme for Bosnia and Herzegovina for the year 2016
Action Title	Support to Flood Protection and Flood Risk Management
Action ID	IPA 2016/039-653.8/Bosnia and Herzegovina/Flood Protection
Sector Information	
IPA II Sector	Sector 6 - Competitiveness and Innovation
DAC Sector	41050 - Flood prevention/control
Budget	
Total cost	EUR 5 000 000
EU contribution	EUR 5 000 000
Budget line(s)	22.020102
Management and Implementation	
Management mode	Direct management
<i>Direct management:</i> EU Delegation <i>Indirect management:</i> National authority or other entrusted entity	EU Delegation to Bosnia and Herzegovina
Location	
Zone benefiting from the action	Bosnia and Herzegovina
Specific implementation area(s)	N/A
Timeline	
Final date for concluding Financing Agreement(s) with IPA II beneficiary	At the latest by 31 December 2017
Final date for concluding procurement and grant contracts	3 years following the date of conclusion of the Financing Agreement, with the exception of cases listed under Article 189(2) of the Financial Regulation
Final date for operational implementation	6 years following the conclusion of the Financing Agreement
Final date for implementing the Financing Agreement (date by which this programme should be de-committed and closed)	12 years following the conclusion of the Financing Agreement

Policy objectives / Markers (DAC form)			
General policy objective	Not targeted	Significant objective	Main objective
Participation development/good governance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aid to environment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Gender equality (including Women In Development)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Trade Development	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reproductive, Maternal, New born and child health	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RIO Convention markers	Not targeted	Significant objective	Main objective
Biological diversity	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Combat desertification	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Climate change mitigation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Climate change adaptation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

1. RATIONALE

PROBLEM AND STAKEHOLDER ANALYSIS

Floods are the most frequent natural hazard in Bosnia and Herzegovina (BiH), occurring at least once a year and causing considerable damage to property. About 2500 km² of the country's territory is prone to flooding, in particular the River Sava and its tributaries.

In December 2010, Bosnia and Herzegovina experienced the largest amount of precipitation recorded in the last 100 years, which resulted in massive floods on the entire territory. According to competent authorities, the hardest hit areas were on Drina River, in Central and Eastern Herzegovina. In these areas alone, more than 4000 people were evacuated.

The heavy rainfall of May 2014 affected the country enormously causing the total damage of over 2 billion euro, which equals to 15 % of GDP. The analyses indicated that the private sector (small family business as well as mid-size and bigger companies), agricultural sector and a huge number of citizens suffered the most damage. The estimates show that the damage in the Federation of Bosnia and Herzegovina (FBiH) was 1.04 billion euro, in the Republika Srpska (RS) 0.97 billion euro, and in the Brčko District 0.30 billion euro.

Catastrophic consequences were a result of pre-existing environmental degradation drivers, such as deforestation, intrusion in floodplains and construction/developments in flood-prone areas, as well as other factors, such as inadequate flood protection infrastructure in urban areas, unfinished, damaged or poorly maintained flood protection structures, shortage or absence of data and analyses defining the actual flood risk, professional work in the field of flood protection interrupted by war, etc.

The recovery actions in BiH started immediately after the floods. EU has encouraged Bosnia and Herzegovina to develop a comprehensive Action Plan as recovery framework for flood protection and water management. This Action plan determined the context for harmonised and coordinated flood protection and river management both in Bosnia and Herzegovina and at a wider regional level.

The EU Floods Directive (Directive 2007/60/EC¹ on the assessment and management of flood risks) aims to reduce and manage the risks that floods pose to human health, the environment, cultural heritage and economic activity. The Directive requires Member States to first carry out a preliminary assessment to identify the river basins and associated coastal areas at risk of flooding. For such zones they would then need to draw up flood hazard and flood risk maps, and establish flood risk management plans focused on prevention, protection and preparedness. The Directive applies to inland waters as well as all coastal waters across the whole territory of the EU. The countries should complete EU compliant flood hazard and flood risk maps as well as **flood risk management plans**.

The frequency and intensity of natural disasters are expected to increase in the future due to climate change. The capacity of the country to reduce disaster risks depends on investment in appropriate infrastructure, on its ability to provide reliable scientific information on vulnerability, exposure and hazard predictions and to use this information in determining the levels of risk, and act accordingly.

Therefore it is of utmost importance that competent authorities in BiH continue implementing the EU Floods Directive. By defining and implementing adequate programmes of measures envisaged in Flood Risk Management Plans (FRMPs), BiH will prevent material damages and human victims in future as well as create preconditions for the economic and social development of protected areas by improving the ecological conditions. FRMPs will promote implementation of Natural Water Retention Measures (NWRM) where it is feasible.

Flood Risk and Flood Hazard Maps referred to in the Directive are being developed and, as planned, will be finalised by mid of 2018 (Flood Hazard and Flood Risk Maps Project in Bosnia and Herzegovina subject to WBIF assistance). They present a basis for development of FRMPs to be covered under

¹ <http://floods.jrc.ec.europa.eu/eu-floods-directive.html>

Component 1 of this Action. Once established, FRMPs will be coordinated at the level of the rivers basin district and unit of management by 2021.

Component 2 of the proposed Action responds to the above-described problems related to inadequate flood protection infrastructure in BiH. The Action targets the priorities set by key stakeholders in two watershed areas in BiH.

Dealing with erosion is an integral part of the flood protection field. The urgency and importance of dealing with erosion was again proven on the occasion of catastrophic floods in 2014, when the landslides and deposits of eroded material (stones, mud) in the riverbeds caused the greater part of overall damages. The erosion affected torrent tributaries and accumulations of eroded material and debris led to physical narrowing of the riverbeds and consequently flooding the surrounding floodplains and settlements.

Land erosion causes enormous and long-lasting damages that threaten several economy sectors at the same time: agriculture, forestry, transportation, utility infrastructure, settlements etc. To date, only partial protection measures were undertaken depending on the institution in charge and its particular interests. Much bigger and more effective impact would be achieved if the erosion preventing actions were coordinated and with the multi-disciplinary approach. The erosion issue was seriously tackled during the 2014 floods. The RS undertook the activities to develop erosion maps for the RS territory as early as in 2006. The FBiH has foreseen the issue of lowering of erosions in the Water Management Strategy of the FBiH 2010-2022. In line with that, the proposed Action, Component 2 foresees development of Erosion Management Programme for the FBiH and Brčko District of BiH, which would be the initial phase of monitoring and potential control of erosion in the territory of BiH flood areas.

In order to increase the preparedness level of protection from harmful effects of waters in BiH further investment into solid physical infrastructure is critical. Therefore, physical infrastructure is important to successfully deal with flood occurrences and flood risk reduction across BiH. Given the importance to protect the highly flood-prone areas from huge flood-related damages the competent institutions in BiH will undertake necessary activities aiming to prepare the infrastructure projects to full maturity taking into account stipulations of the Article 4.7 of the **Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy** (Water Framework Directive: WFD).

Technical concepts of and solutions for the riverbed route reconstruction will observe the natural line of the riverbed to the maximum extent possible in order to reduce the quantity of the land to be expropriated and thus ensure smooth solving of property-rights issues. Right after the 2014 catastrophic floods, urgent interventions were undertaken to rehabilitate the most heavily flood-affected areas (infrastructure, settlements and industrial facilities). This Action endeavours to support priority flood protection measures defined in the BiH strategic documents and observing the details of the measures additionally agreed upon by key stakeholder institutions. To ensure normal living conditions and help revitalising economy, agriculture and livelihood, the most urgent sites and their high priority sections were selected targets for this Action in the River Sava Watershed (Vrbas, Bosna and Tinja basins) and the Adriatic watershed (Trebišnjica and Neretva basin).

OUTLINE OF IPA II ASSISTANCE

Coordination of all relevant actors, adequate planning and a solid physical infrastructure are critical to successful dealing with flood occurrences and flood risk reduction across BiH. Therefore, the proposed action is twofold: Component 1 aims to cover the coordination issues by improving BiH management system in terms of developed flood risk management plans for entire BiH; and Component 2 aims to develop technical solutions (plans and technical documentations) for structural measures on the most critical locations related to infrastructure for a higher level of protection from floods. These technical solutions include support for flood protection projects in priority areas to achieve full maturity and will include measures to mitigate the adverse effects on the status of the water bodies.

Component 1 will have one result:

Result 1: Improved flood risk management system in BiH. IPA II 2016 will support TA for creation of five flood risk management plans (FRMP), namely, two FRMPs in the FBiH, two FRMPs in the RS, one FRMP in the Brčko District of BiH, and the Roof Report for BiH.

Component 2 will have one result, in the Sava River and the Adriatic watersheds:

Result 2: Increased readiness for implementation of structural measures protecting from floods in priority areas.

Priority areas and sections for result 2 were set jointly by key stakeholders:

- Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina (MoFTER);
- Ministry of Agriculture, Forestry and Water Management of Republika Srpska;
- Federal Ministry of Agriculture, Water Management and Forestry;
- Government of Brčko District Bosnia and Herzegovina, Department for Agriculture, Forestry and Water Management;
- Public Institution – Vode Srpske;
- Sava River Watershed Agency Sarajevo, Federation of Bosnia and Herzegovina;
- Agency for Watershed of Adriatic Sea in Mostar, Federation of Bosnia and Herzegovina.

Direct Beneficiaries of the project are MoFTER, the competent Entity Ministries and their relevant departments, River Basin Management Agencies in both entities, and the competent department of the Government of Brčko District BiH.

Indirect beneficiaries are all municipalities and inhabitants within potentially affected areas. They will be benefiting since the measures taken by the proposed Action are a prerequisite for mitigation of flood-related damage to human health, environment, cultural heritage and economic activity in the whole country.

RELEVANCE WITH THE IPA II STRATEGY PAPER AND OTHER KEY REFERENCES

SEE 2020 indicates that the implementation of the EU WFD in the SEE presents particular challenges related to water and environmental governance at national level including, among other issues, difficulties in preparing and implementing management plans; cost of infrastructure necessary for the implementation of measures. The proposed Action responds to the indicated challenges with its both components.

The Action also directly meets the **BiH 2015 Report** requirement to address the disaster risk reduction and management as a priority, particularly in the light of the severe 2014 floods. The **BiH 2015 Report** emphasises that the Action plan for flood protection and river management in Bosnia and Herzegovina for 2014-2017 has been adopted. The Report also indicates that a project to draw up flood risk and hazard maps is in preparation, which is being implemented and is planned to be finalised in 2017 as a necessary precondition for the Component 1 of the proposed Action.

The **Stabilisation and Association Agreement (SAA)** makes BiH obliged (article 108) to harmonise its legislation with the EU acquis in the environmental field with the vital task of halting further degradation and to start improving the environmental situation with the aim of sustainable development. The flood protection and flood risk management are part of water management, which is a main component of the environmental field. The proposed Action dealing with flood risk management as well as preparation of pre-conditional technical solutions for flood protection infrastructure contributes to meeting the SAA requirement as presented in the cited Article 108.

Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risks (Floods Directive: FD) stipulates the obligation to enact the plans for management of flood risks. Articles 7-11 of the FD describe the activities that need to be done when enacting the plans, and the Annex to the FD defines which components has to be included in the first flood risk management plans. The FD also determines the steps preceding flood risk management plans: 1) Preliminary Flood Risk Assessment (PFRA); and 2) Flood hazard and flood risk maps. The Directive shall be carried out in coordination with the Water Framework Directive, notably by flood risk management plans and river basin management plans being coordinated, and through coordination of the public participation procedures in the preparation of these plans. All assessments, maps and plans prepared shall be made available to the public.

Appropriate involvement and coordination of water management, spatial and urban land use planning, agriculture and forest management institutions, as well as nature protection organizations, public

institutions and stakeholders will result with measures that can contribute to the implementation of objectives of different European union policies such as: Water Framework Directive, Floods Directive, EU Biodiversity Strategy, EU Action on Water Scarcity and Drought, EU Climate Change Adaptation Strategy and Marine Strategy Framework Directive.

Following the floods in BiH and Serbia in May 2014, and based on a common understanding of the needs for investments in the sector and the implementation of the Floods Directive (FD), the European Commission (EC) ordered the analysis on the status of flood management in general and specifically on the implementation of the FD in the Western Balkans (WB) countries. The analysis is presented in the study for the European Commission **“Flood Prevention and Management. Gap analysis and needs assessment in the context of implementing EU Floods Directive”** (FPM). Selection of both components of here proposed Action is supported by the recommendations of the analysis. The need for the FRMPs, developed within the Component 1 of the Action, is clearly stipulated in the FD, whereas the sequencing of development phases and content details of FRMPs are highlighted in the FPM. Component 2 of the Action is about preparation of technical solutions for flood protection infrastructure investment projects, whose intervention types and sites FPM recommends based on the assessment against the criteria of (1) relevance (flood related), (2) availability of sufficient information and (3) compliance with EU and other legislation. Among the proposed projects, FPM recommends the priority areas for intervention coinciding with the priority areas set by the BiH competent institutions being the key stakeholders of this Action, e.g.: Trebišnjica basin (Trebinje, Petrovo polje), Vrbas basin (Laktaši, Gradiška, Srbac), Bosna basin (the Spreča River), the Tinja River (Brcko) and Neretva basin (the Trebižat River) etc.

Action Plan for Flood Protection and Water Management in BiH 2014-2017, adopted by the Council of Ministers BiH (2014), elaborates the need and indicates measures to harmonise legislation in BiH with key EU directives in this area, and particularly to fully meet the EU FD requirements implying the flood infrastructure improvement (Measure 2 of the Action Plan 2014-2017). Further, second part of the IPA 2016 Action is in full line with Measure 3 of the Action plan 2014-2017. Therefore, the proposed Action within IPA II 2016 is fully in line with the Action Plan priorities.

Water Management Strategy of the FBiH (2010-2022) defines risk reduction of extreme hydrological occurrences as one of strategic objectives and proscribes measures to achieve operational objectives. Increased security of flood protection assumes rehabilitation and sanitation, construction and maintenance of facilities protecting from waters. Adjacent action plan foresees ensuring functionality of existing facilities protecting from harmful effects from waters aiming to increase the level of protection security from floods and to achieve strategic objectives of water management.

Integrated Water Management Strategy of Republika Srpska (2015-2024) defines the protection of the population, settlements, property and material goods from floods and other harmful effects of water as one of the strategic objectives. The Strategy also specifies that, in line with the Floods Directive, the RS has to analyse and map the zones vulnerable to floods, including flood risk analysis. Based on the analyses, terms of land use have to be defined to prevent the current trend of massive increasing the potential damage from floods in the Republika Srpska.

LESSONS LEARNED AND LINK TO PREVIOUS FINANCIAL ASSISTANCE

There is an ongoing EU funded regional initiative managed by the European Commission Directorate General for Humanitarian Aid and Civil Protection (DG ECHO), i.e. IPA FLOODS project, started on January 2015 and will run until end 2016. Its goal is to increase flood risk management capacities at national, regional and EU levels in the Beneficiaries: Albania, Bosnia and Herzegovina, Croatia, the Former Yugoslav Republic of Macedonia, Kosovo², Montenegro, Serbia and Turkey. To this purpose, IPA

² This designation is without prejudice to positions on status, and is in line with UNSCR 1244/99 and the ICJ Opinion on the Kosovo declaration of independence.

FLOODS supports capacity building for flood preparedness and response and approximation to the EU Floods Directive in the beneficiaries.

The ongoing assistance under the WBIF aims to provide for flood hazard and flood risk maps in BiH. These outputs are precondition for implementing the activities under this Action Document, primarily under Component 1.

The assistance planned under the IPA Multicounty Programme on Risk Assessment and Mapping in the Western Balkans and Turkey (2017-2019) will have 3 components: Component 1: Develop and improve national systems for disaster loss data collection; Component 2: Further develop and improve national risk assessments following EU guidelines and good practices, in particular including identification of risks of cross-border and regional aspects, and Component 3: Develop and improve national and regional risk mapping and establishment of Electronic Regional Risk Atlas (ERRA).

It is important to link the activities of this Action Programme for BiH with the ongoing and planned regional IPA programmes to create synergies and avoid duplication.

When dealing with the project “Capacity Building in the water sector in BiH” (IPA 2011) stakeholder institutions repeatedly realised how important precondition for the success it is to involve all competent institutions and ensure their full commitment and thus their ownership over the project. The project was about harmonisation of the relevant legislation in BiH with EU water related acquis, development of Management plans for the River Sava watershed in BiH, capacity building, tariffs in the water sector and strengthening the water information system. All project results were accepted and approved by the beneficiaries and are now in the process of formal adoption.

In course of preparation of the IPA 2014 Special Measures Action “Support to Flood Protection/Prevention and Water Management” (particularly the Component 1. Hydrological forecasting system for Sava River Basin) the need for participative involvement of the relevant institutions was recognised, to create sense of the ownership. However, in the ongoing preparations for implementation this still needs to be enhanced to ensure consent regarding identification of key measures and equipment to be provided through the Action so to unify the hydrological forecasting system/model in BiH.

IPA 2014 Special Measures Action (Components dealing with infrastructure works) has shown that the adequate preparation (project documentation, construction permits, land expropriation) is important for the successful implementation of infrastructure projects. The local self-government units, on whose territory the works will be carried out, play an important role here. As part of their formal jurisdiction is a land expropriation, some local self-government units faced with the problems of a legal nature (land expropriation cannot be done or it requires a long procedure) and the problems related to budgetary limitations. Hence, it is important to include representatives of concerned self-government units at the very beginning of process in order to carry out long procedures regarding expropriation and to ensure financial means from other sources if they do not have their own.

The regional joint project between Republic of Serbia and BiH (IPA 2014) confirmed that regional cooperation is an important aspect of water management and flood protection in particular. This is especially important for the river that connects several countries (e.g. the Sava River) when the joint and synchronised action of flood protection is necessary and the only multi-country approach makes sense and can provide satisfactory results.

In light of the aforesaid, the Action proposed in the field of flood protection (IPA 2016) will duly take into account all the lessons learned in order to avoid project delays and maximise results to the highest possible level.

2. INTERVENTION LOGIC

LOGICAL FRAMEWORK MATRIX

OVERALL OBJECTIVE	OBJECTIVELY VERIFIABLE INDICATORS (*)	SOURCES OF VERIFICATION	
To support the development of integrated flood risk management in Bosnia and Herzegovina in line with the European Union Floods Directive and in coordination with the Water Framework Directive	Progress made in harmonisation with the EU Floods Directive, in coordination with the Water Framework Directive	EC BiH Reports	
SPECIFIC OBJECTIVE	OBJECTIVELY VERIFIABLE INDICATORS (*)	SOURCES OF VERIFICATION	ASSUMPTIONS
To support the implementation of the Action Plan for Flood Protection and Water Management and thus increase capacities of key stakeholders of Bosnia Herzegovina to manage flood risk management in terms of prevention, protection and preparedness to respond to potential hazards	% of implementation of Measures 2 and 3 planned in the Action Plan	EC BiH Reports Competent institutions` reports on the implementation of the Action Plan for Flood Protection and Water Management Annual and final reports on implementation of the Action	BiH remains committed to progressing in fulfilling SAA requirements
RESULTS	OBJECTIVELY VERIFIABLE INDICATORS (*)	SOURCES OF VERIFICATION	ASSUMPTIONS
<p>Component 1.</p> <p>Result 1: Flood risk management system in BiH is improved</p>	Indicator 1.1: Five Flood Risk Management Plans (FRMPs) as well as one roof report in BiH available and adopted	EC BiH Reports Competent institutions` reports on the implementation of the Action Plan for Flood Protection and Water Management	Good co-operation and co-ordination amongst key stakeholders Proactive involvement of all stakeholders involved in implementation of the Action
<p>Component 2.</p> <p>Result 2: Readiness for implementation of structural measures protecting from floods in priority areas is increased</p>	Indicator 2.1: Erosion protection plans for FBiH and BD finalised. Indicator 2.2. Technical design documentation for flood-protecting infrastructure for the selected priority sections of the River Sava and the Adriatic watersheds completed.	Competent institutions` reports on the implementation of the Action Plan for Flood Protection and Water Management	Flood Hazard and Flood Risk Maps developed and available in time (subject to WBIF assistance), to allow for preparation of the FRMPs, Key stakeholder institutions in BiH agreed upon all BiH FRMPs

(*) All indicators should be formulated as measurement, without specifying targets in the Logical Framework Matrix. The targets should be included in the performance measurement table in section 4. More detailed guidance on indicators is provided in Section 4 on performance measurement.

DESCRIPTION OF ACTIVITIES

To achieve Component 1, Result 1 “Improved flood risk management system in BiH”, six main activities will be carried out within the Action:

- 1.1. Creating a flood risk management plan for Sava River Watershed in the FBiH
- 1.2. Creating a flood risk management plan for Watershed of Adriatic Sea in the FBiH
- 1.3. Creating a flood risk management plan for district Sava River Watershed in the RS
- 1.4. Creating a flood risk management plan for district Trebišnjica River Watershed in the RS
- 1.5. Creating a flood risk management plan for the Brčko District of BiH
- 1.6. Creating the Roof Report for BiH, summarizing key issues and key measures extracted from the five flood risk management plans.

The number of plan documents reflects the constitutional setup of BiH, distribution of competences and provisions of current legislation in BiH. The plans will be made based on all relevant analyses (legal, technical, economic, inter-sectoral). The plan documents will cover entire BiH divided in five regions – two in the FBiH, two in the RS and one in BD of BiH. The Roof Report will be made for BiH as a whole.

Development of FRMPs – as a Component 1 (a non-structural measure) of the proposed Action - will be processed according to standardised procedure within entire Bosnia and Herzegovina observing Constitutional competency (draft preparation plan, strategy for public awareness in order to ensure support for the Plan(s), determining the long list of measures and preparation of short list, methodology for measure assessment, public discussions, public participation, presentations, integration with River Basin Management Plans and Sava Commission Action Plan, finalisation and approval by competent authorities). FRMPs shall take into account relevant aspects such economic aspects of costs and benefits, flood extent, flood conveyance routes and areas having the potential to retain floodwater. Another important dimension of the FRMPs is that they will analyse potentials for use of natural water retention areas (those that can be purposely exposed to flood in order to protect priority areas). Based on the analyses, the FRMPs will identify and recommend the most appropriate natural water retention areas.

The activities will be carried out based on complementary methodologies and analyses, which is critical particularly for the flood areas divided by the inter-entity borders. Concerning complementarity, the regional context will be also duly observed in terms of harmonising BiH plans with the plans developed at level of the River Danube watershed (International Commission for the Protection of the Danube River - ICPDR) and the River Sava watershed (International Sava River Basin Commission).

All measures included in the flood risk management plans will be harmonised with the provisions of Water Framework Directive (2000/60/EC) (stipulated in Articles 9 and 10 of Floods Directive).

To achieve Component 2, **Result 2** “Increased readiness for implementation of structural measures protecting from floods in priority areas”, two main activities will be carried out within the Action:

- 2.1. Developing plan documents related to protection from erosion in the territory of the FBiH and the Brčko District of BiH.
- 2.2. Developing technical documentation (e.g. feasibility studies, cost benefit analyses, EIA, conceptual/preliminary/ detailed designs, etc. as appropriate) for infrastructure protecting from floods in the priority areas in the Sava River and the Adriatic watersheds in RS, FBiH and BD.

Activity 2.1 foresees development of Erosion Management Programme for the FBiH and BD of BiH as an initial phase of monitoring and potential control of erosion in the FBiH flood areas. The Programme would be complementary to the document already developed in the RS, so there would be completed the overview of erosion areas (complete erosion maps) for the whole territory of FBiH and defined overall measures for combating erosion in FBiH. In addition, one of the outputs of this activity would be a defined scope of the needed monitoring to be performed annually for erosion control in the entire territory of FBiH. The

Programme should be based on the recommendations of the *Protocol on sediment management to the framework agreement on the Sava river basin*, made by the International Sava River Basin Commission.

Land erosion causes enormous and long-lasting damages that threaten several economy sectors at the same time: agriculture, forestry, transportation, utility infrastructure, spatial planning etc. To date, only partial protection measures were undertaken depending on the institution in charge and its particular interests. Much bigger and more effective impact would be achieved if the erosion preventing actions were coordinated and with the multi-disciplinary approach.

Activity 2.2 foresees developing a set of technical documentation (preliminary and detailed designs) aiming to bring flood protection projects in the priority areas to full maturity including measures to mitigate the adverse effects on the status of the water bodies. The key stakeholder competent institutions jointly identified critical areas that urgently need to be ready for infrastructural rehabilitation and re/construction. While indicating the priority areas, the stakeholder institutions observed the criteria of key beneficiaries in the field affected by the floods (taking into account the biggest potential material damages in the industrial zones, agricultural land and the highest risk for the population in settlements) as well as the criteria from the Action Plan for flood protection and water management in BiH 2014-2017, which with the **Measure 3** (“Adoption of new technical solutions for protection from floods, erosion and torrents in settlements and towns without constructed water protection facilities, and construction of new facilities”) fully justifies the activities envisaged within the Component 2 of the Action. Not the least, they also observed the criteria and recommendations presented in the study made for the European Commission “**Flood Prevention and Management. Gap analysis and needs assessment in the context of implementing EU Floods Directive**”. The institutions indicated some of the areas urgently needed to be ready for flood-protection infrastructural interventions: *among others, e.g.*: the River Vrbas area, the River Trebišnjica area, the River Spreča area, the Tinja River area and the Trebižat River area. Selected Areas are already identified as areas of significant flood risks (Article 5. of Floods Directive) and flood hazard and flood risk maps would be developed (Article 6. of Floods Directive) prior to this action.

With the Framework Agreement on the Sava River Watersheds, also the Protocol on Flood Protection came into force, in November 2015. The Action of IPA 2016 will directly contribute to the implementation of the Protocol and the Framework Agreement.

RISKS

Assumptions

- Full commitment and support of the decision-making apparatus of the involved institutions is ensured. Representatives of all competent institutions from the top management level had meetings and regular communication during the preparation of the draft of this Action Document (AD) and in the meeting of May 19, 2016 reached the final agreement on the inputs for development of the AD. During development of the AD all key stakeholders maintained regular communication;
- Flood Hazard and Flood Risk Maps developed and available in time (subject to ongoing WBIF assistance), to allow for preparation of the FRMPs, subject to Component 1 of this Action;
- Unrestricted access to all available relevant data, including maps, reports, normative acts, meteorological, environmental and hydraulic data and records, and to any required information relevant to the subject of the Action (**particularly for Component 1**);
- To avoid overlapping, good coordination with related on-going projects in BiH is established and ensured.

Risks

- Lack of adequate data (information) to carry out the project, which, consequently, must be obtained;
- Lack of close cooperation between all the stakeholders involved in the project;
- Delays in development of the Flood Hazard and Flood Risk Maps project (ongoing WBIF assistance);
- Failure to consider implications to other environmental legislation (Water Framework Directive, EU Biodiversity Strategy, EU Action on Water Scarcity and Drought, EU Climate Change Adaptation Strategy and Marine Strategy Framework Directive etc. as deemed appropriate);
- Failure to coordinate the two contracts (running in parallel) so that products of one (flood risk management plans) are compatible with the other (infrastructure planning).

Specifics for Component 2 and corresponding Result 2

When it comes to developing a set of technical documentation (preliminary and detailed design) for infrastructure protecting from floods one of the criteria for the preliminary and detailed design will be to require the minimal size of the land to be expropriated. In case that selected top priority sections do not meet this criterion, representatives of local communities will be timely contacted and their preliminary assent will be obtained so that the planned intervention can go smoothly.

To ensure commitment of all directly affected stakeholders, Entity water agencies are involved in the Action design and implementation. In addition, the plan is to involve representatives of all municipalities that will be affected by Component 2 of this Action.

CONDITIONS FOR IMPLEMENTATION

There are two key conditions for creation of Flood Risk Management Plans (FRMP): 1) Preliminary Flood Risk Assessment (PFRA); and 2) Flood hazard and flood risk maps.

PFRA is a means of identifying these areas that present a potential significant risk. This is primarily a desk-based exercise that shapes what happens next and maybe seen as an unnecessary diversion away from the more pressing flood risk management activities, however it is certainly not. Articles 4 and 5 of the Floods Directive describe the requirements for PFRA. Relevant authorities in BiH have confirmed the PFRAs in BiH, which identified areas where the risks associated with flooding might be significant (referred to as Areas for Further Assessment, or 'AFAs'), where more detailed assessment will be subsequently undertaken to more accurately assess the extent of flood risk, based on the selected methodology and using the flood index.

Flood hazard and flood risk maps are basis for establishing flood risk management plans (as described in the Article 7 of the Floods Directive). They must be produced for each of the Significant Flood Risk Areas (SFRAs) identified in PFRA. These maps provide a thorough understanding of the impact of flooding and are an important visual tool to communicate flood risk. They are used to assist in the selection of objectives and measures in FRMPs. BiH obtained finances from WBIF for creation of flood hazard and flood risk maps; the ToR is being finalized and adopted on June 10, 2016 whereas the implementation was planned to start in late July 2016 with the implementation period of 24 months.

3. IMPLEMENTATION ARRANGEMENTS

ROLES AND RESPONSIBILITIES

Flood risk management, mitigation, flood protection and prevention are an integral component of water management concept, which arises from the EC water related Directives. Flood risk management in Bosnia and Herzegovina is under the competence of BiH, Entities and for the area of Brčko District, under the competence of the Government of Brčko District.

At the State level Ministry of Foreign Trade and Economic Relations (MoFTER) of Bosnia and Herzegovina is responsible for tasks related to defining policies; coordinating activities and harmonising plans of Entity authorities and bodies at international level – among others in the fields of agriculture, energy, protection of the environment, development and use of natural resources and tourism. The competencies of MoFTER in the water sector are focusing on the development and use of water resources as part of natural resources, and the coordination of the Entity Ministries of Water Management.

Both entities and the Brčko District have separate water management institutions, as follows:

- FBiH: the Federal Ministry of Agriculture, Water Management and Forestry, with the River Basin Management Agencies “Sava River Watershed Agency” Sarajevo and “Adriatic Sea Watershed Agency” Mostar;
- RS: the Ministry of Agriculture, Forestry and Water Management of Republika Srpska, with the Public Institution “Vode Srpske” Bijeljina;
- BD: the institutions lean on the legislation of RS and data gathered in both entities. The competent institution in the Government of the Brčko District BiH is Department for Agriculture, Forestry and Water Management.

A Steering Committee will guide the implementation of this Action under IPA II 2016. Apart from Contracting Authority, Steering Committee will include representatives from main stakeholders: MoFTER, Entity River Basin Management Agencies, the competent Entity Ministries, and the Government of Brčko District. The composition of the Steering Committee will depend on equal representation of the interest of all key actors bearing in mind effectiveness and efficiency of such body.

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

The project will be implemented under direct management.

The Action will be implemented through two service contracts as follows:

- 1st Service contract under Component 1 of this action document in order to provide the Technical Assistance in developing Flood Risk Management Plans for BiH. The Service contract is envisaged to last 24 months.
- 2nd Service contract under Component 2 for preparing Erosion Management Programme for FBiH and District Brčko of BiH and technical designs (e.g. feasibility studies, cost benefit analyses, EIA, conceptual/preliminary/ detailed designs, etc. as appropriate) for flood-protecting infrastructure in priority areas of the River Sava and the Adriatic Watersheds. The Service contract is envisaged to last 24 months.

The proposed actions are foreseen to be implemented in parallel, as in line with conclusions of the donors' conference on floods and its review of last year. Namely, it highlighted that flood protection infrastructure should be done urgently as in BiH the damages after the 2014 flood are heavily due to deficiencies of existing and lack of proper infrastructure primarily.

4. PERFORMANCE MEASUREMENT

METHODOLOGY FOR MONITORING (AND EVALUATION)

The European Commission may carry out a mid-term, a final or an ex-post evaluation for this Action or its components via independent consultants, through a joint mission or via an implementing partner. In case a mid-term or final evaluation is not foreseen, the European Commission may, during implementation, decide to undertake such an evaluation for duly justified reasons either on its own decision or on the initiative of the partner. The evaluations will be carried out as prescribed by the DG NEAR guidelines for evaluations. In addition, the Action might be subject to external monitoring in line with the European Commission rules and procedures set in the Financing Agreement.

INDICATOR MEASUREMENT

Indicator	Baseline (value + year)	Target 2020	Final Target (year)	Source of information
CSP indicator (impact/outcome)...(1)				
Progress made in harmonisation with the EU Floods Directive	Year: 2010 Status: a large amount of legislation transposing the <i>Acquis</i> is not in place. There is a lack of harmonised implementation of water laws, monitoring and river basin planning between the Entities.	Alignment with the EU Floods Directive greatly achieved, at least 90%	Year: 2021 Alignment with the EU Floods Directive achieved 100%	EC BiH Reports
Specific objective indicator				
% of implementation of Measures 2 and 3 planned in the Action Plan	Year: 2014 Status: further harmonisation with the Floods Directive and improved flood protection infrastructure is needed to provide for efficient floods prevention and management in BiH. This includes structural and non-structural measures.	100% of the measures concerned and planned by 2020 in the Action Plan	Year: 2021 100% of the measures concerned and planned by 2021 in the Action Plan	EC BiH Reports Competent institutions` reports on the implementation of the Action Plan for Flood Protection and Water Management Annual and final reports on implementation of the Action
Result 1 indicator				

Number of Flood Risk Management Plans (FRMPs) in BiH available and adopted	Year: 2014 No FRMPs available in BiH.	Year: 2020 5 FRMPs (1.1, 1.2., 1.3, 1.4, 1.5) and Roof Report for BiH drafted 80%	Year: 2021 All FRMPs and the Roof Report for BiH completed and adopted	EC BiH Reports Competent institutions ³ reports on the implementation of the Action Plan for Flood Protection and Water Management
Result 2 indicator				
2.1. Number of erosion protection plans for BiH finalised. 2.2. Degree of selected priority areas of the River Sava and the Adriatic watersheds addressed through provision of technical design documentation for flood-protecting infrastructure	Year: 2014 2.1. No Erosion protection plans in BiH 2.2. Technical Documentation for urgent priorities subject to IPA 2014 assistance (Special Measures) completed (procurement procedures for works execution under preparation)	Year: 2020 2.1. Draft Erosion protection plans completed for FBiH and BD 2.2. 80% of the Technical Documentation for selected priorities sections completed	Year: 2021 2.1. Final Erosion protection plans for FBiH and BD agreed and completed 2.2. Technical Documentation for selected priorities sections completed to enable launching procurement procedures for works	Competent institutions` reports on the implementation of the Action Plan for Flood Protection and Water Management

³ See list of key stakeholders in section 1.

5. SECTOR APPROACH ASSESSMENT

Floods Protection and Flood Risk Management are embedded in the sector Environment.

There is no countrywide environment strategy in place in Bosnia and Herzegovina. This is required to ensure a countrywide harmonised implementation of the EU acquis. Strategies at entities level are also fragmented and have not been prepared to present the situation and objectives for the sub-sector at a country level in a comprehensive and harmonised way. In the area of water, the “Strategy of Integrated Water Management of Republika Srpska 2015-2024” and the “Water Management Strategy of the Federation of Bosnia and Herzegovina 2010-2022” are relevant strategies at entity levels.

In order to be better prepared for the future and prevent such catastrophic events from happening again Bosnia and Herzegovina prepared and adopted the Action Plan on water and flood management in 2014. This comprehensive Action Plan set the context in which flood protection and flood risk management is taken forward in a harmonised and coordinated way, both within Bosnia and Herzegovina as well as on a regional basis.

Regarding institutional settings, leadership, the capacity and performance framework, MoFTER is the institution responsible for coordination of strategic planning at the country level. According to the representatives of MoFTER, the capacities for strategic planning are insufficient;

Regarding the sector and donor coordination, the main participating donors include the European Investment Bank (EIB), World Bank, SIDA, Kreditanstalt für Wiederaufbau (KfW), United Nations Development Programme (UNDP) and the EU. There are individual donor pipelines of projects, which are currently not coordinated. Donor coordination meetings in the environment sector are held but they are directly organised by the donors. There is a need for a stronger role of the national authorities in donor coordination. Besides the EU Delegation, the Swedish International Development and Cooperation Agency (SIDA) have a leading role regarding environment.

6. CROSS-CUTTING ISSUES

GENDER MAINSTREAMING

The Action is an intervention aiming at strengthening capacities (in terms of prevention, protection and preparedness) for Flood Risk Management in Bosnia and Herzegovina. The impact of the Action is considered to be beneficial for both man and woman. However, in terms of consequences of the floods, women are considered more affected especially in rural areas, in terms of effects to employment and social aspects. Gender mainstreaming will be ensured in all aspects whenever possible, e.g. composition of various implementing, administrative or supervising bodies, capacity building exercises, gender sensitive language etc. All collected data in the studies and analyses within the Action – where applicable – will be gender segregated.

EQUAL OPPORTUNITIES

Equal opportunity principles and practices in ensuring equitable participation and non-discrimination within the Action will be guaranteed. Planning for infrastructural interventions within the Action should observe the standards set in the relevant documents. UN Convention on the Rights of Persons with Disabilities demands awareness of environmental barriers hindering the full and effective participation of disabled persons in society on an equal basis with others.

MINORITIES AND VULNERABLE GROUPS

The Action is to develop a comprehensive and integrated approach in the area of flood protection. The approach is a part of Bosnia and Herzegovina recovery framework addressing the causes and consequences of floods. Through this Action, Bosnia and Herzegovina will assist the rehabilitation of local communities particularly along the basin Vrbas and Bosna as regions which have been the mostly hit by flood in May 2014. In those areas live mostly most vulnerable populations, e.g. Roma minorities and socio-economically vulnerable groups.

The preparation of technical solutions for flood-protecting infrastructure in priority areas of the River Sava and the Adriatic Watersheds will contribute to restoring normal living conditions and revitalising economy, agriculture and livelihood in one of the most flood-prone areas in Bosnia and Herzegovina.

Participation in the Action activities will be guaranteed on the basis of equal access regardless of racial or ethnic origin, religion or belief, disability, sex or sexual orientation.

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

Active involvement of civil society and interested parties in the consultation process during preparation of FRMPs and related public hearings is foreseen (Article 10. of Floods Directive). FRMPs as well as Preliminary Risk Assessments and Flood Hazard and Flood Risk Maps need to be publically available. FRMPs need to be revised every six years and integrated with relevant River Basin Management Plans thus strong engagement of civil society is needed.

Further civil society involvement is foreseen for the period of the implementation of measures stipulated by FRMPs due to their high impact on the environment. The complex impact of the FRMPs implementation understands a cross-sector cooperation and consultation, where the role of civil society is of high relevance. This is particularly relevant for the implementation of non-structural and cross sectorial measures that will introduce new concepts for flood risk management (e.g. NWRM that cover a wide range of actions and land use types in Agriculture, Hydromorphology, Urban and Forestry sectors encouraging retention of water within a catchment and enhancing the natural functioning of the catchment).

ENVIRONMENT AND CLIMATE CHANGE (AND IF RELEVANT DISASTER RESILIENCE)

The Action fully observes the EU environmental acquis and contributes to achievement of the environmental objectives of Article 4 of Directive 2000/60/EC, soil and water management, spatial planning, land use, nature conservation, navigation aspects and port infrastructure (FD Art.7 (3) and Annex). FRMPs will be in the final stage of its development harmonised with the Article 4 of Directive 2000/60/EC. FRMPs have to duly take into account the Water Framework Directive, since their implementation directly influences the natural river courses and degrades the status of the natural courses. Therefore it is of high importance to harmonise the FRMPs with management plans for the watersheds of Sava and Danube, so it is highly recommended to maintain a close cooperation with the International Commission for the Protection of the Danube River and the International Sava River Basin Commission particularly in the final stages of the FRMPs development.

By supporting the development of integrated flood risk management, the Action is contributing to a better climate change adaptation in the country, by anticipating its adverse effects and taking appropriate action to prevent or minimise the damage they can cause.

Climate action relevant budget allocation: EUR 5 000 000
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7. SUSTAINABILITY

The sustainability of results will be achieved through ensuring that the design of FRMPs and preliminary and construction designs will be done with full involvement of relevant authorities of Bosnia and Herzegovina. Technical assistance will provide advisory and hands on support observing roles, responsibilities and competences of relevant authorities.

The high involvement of stakeholders in FRMPs, plan documents and technical documentation development will ensure ownership, long-term links and commitment among relevant authorities. Coordination and monitoring of Flood Directives implementation at the respective levels of the Bosnia and Herzegovina structure will continue to function as the main instrument for discussing the needs and creating consensus around the Flood Risk Management not only in the country but in the region, i.e. in River Danube watershed and the River Sava watershed, too.

Moreover, successful fulfilment of EU FD will serve as an example, encouraging adaption of good practice, tested methods and solutions in different contexts. In this respect, MOFTER should take up the role of coordinator and initiator of methodologies and new initiatives for flood protection and flood risk management.

8. COMMUNICATION AND VISIBILITY

Communication and visibility will be given high importance during the implementation of the Action. The implementation of the communication activities shall be the responsibility of the IPA II beneficiary, and shall be funded from the amounts allocated to the Action.

All necessary measures will be taken to publicise the fact that the Action has received funding from the EU in line with the Communication and Visibility Manual for EU External Actions. Additional Visibility Guidelines developed by the European Commission (DG NEAR) will have to be followed.

Visibility and communication actions shall demonstrate how the intervention contributes to the agreed programme objectives and the accession process. Actions shall be aimed at strengthening general public awareness and support of interventions financed and the objectives pursued. The actions shall aim at highlighting to the relevant target audiences the added value and impact of the EU's interventions and will promote transparency and accountability on the use of funds.

It is the responsibility of the beneficiary to keep the EU Delegation fully informed of the planning and implementation of the specific visibility and communication activities.

The beneficiary shall report on its visibility and communication actions in the report submitted to the IPA monitoring committee.