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Conclusions and recommendations of the Regional Conference "Floods in South Eastern Europe - lessons learned and next steps"

Regional conference titled "Floods in South Eastern Europe - lessons learned and next steps" was held in Sarajevo from 5th to 6th November 2014. The conference was organized by the Ministry of Security of Bosnia and Herzegovina in cooperation with the OSCE Mission in Sarajevo and the Centre for Security Cooperation Racviac from Zagreb. The conference was attended by representatives of state and entity institutions and organizations of importance for protection and rescue, representatives of Entity Civil Protection, Department of Public Safety of Brcko District, relevant authorities in the field of protection and rescue of Republic of Slovenia, Croatia, Serbia, Macedonia, Romania, Albania, Turkey and Montenegro, as well as representatives of international organizations - OSCE, UNDP, UNICEF, WMO and ECHO (the organization of the European Commission for humanitarian Aid and civil Protection).

CONCLUSIONS AND RECOMMENDATIONS

Aware of the causes to and consequences of the 2014 floods as well as of the importance of taking joint actions, representatives of relevant institutions, local self-government units, academia, different sectors involved with floods and international organisations that have taken part in this Conference, agree that the Conference on this topic has fully justified its purpose and, through topic-specific presentations and discussions, resulted in the following **conclusions and recommendations**:

1) CONCLUSIONS

1. The problem of large-scale floods is closely linked to river basins stretching across several territories. Hence the need for a closer and more effective regional collaboration in controlling and protecting against floods in the light of the EU Flood Directive. Therefore, it is of key importance to protect the vulnerability of river flow infrastructure by joint preventive measures and flood readiness.



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2. Building capacities in line with the EU Civil Protection Mechanism (new civil protection mechanism in the European Union) combined with adjusting to climate change and environment protection policies is also an area of significance for flood prevention and readiness (consolidation of regulations, more effective and efficient co-ordination, etc.) and should be in focus of intrastate and regional co-operation.
3. Specific areas of regional co-operation in flood prevention and readiness in light of the EU Flood Directive and Water Framework Directive should refer to the following combination of measures: sectorial (cluster) management and co-ordination, flood risk assessment, flood risk mapping, flood risk communication, flood risk planning, flood mitigation and control (hydrometeorologic and flood monitoring and forecasting, early warning, harmonisation of practices and regulations with the EU Flood Directive, joint operational capacities building, training and exercise and joint evaluation through inspections of river basins and through other means of bilateral co-operation in the region.
4. Integrated risk management and adjustment to climate changes within a country should become a good practice and, as such, encompass all relevant stakeholders as to flood prevention and readiness as well as to other flood-related hazards and disasters through civil protection and rescue service (including relevant sectors), at all organisational levels, as a central organisation. This framework (recognised by the UNISDR Hyogo Framework for Action in disaster risk reduction) should be interconnected at the regional level.
5. Bureaucratic procedures of damage assessment and risk analysis must be reduced and the institutional line of jurisdiction defined by relevant laws must be followed.
6. Climate changes are obviously in progress and will quite likely result in extreme weather changes, harmful hazards and new unknown environmental, health and other risks. Therefore, it is of paramount importance to adhere to global and regional regulations and planning, which requires urgent risk treatment and communication.



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7. Each institution that participated in the Conference shall undertake to identify, as per conclusions, specific recommendations in relation to flood and flood-related risks to be considered by all relevant authorities in the country and international and other relevant organisations. Institutions that participated in the Conference shall consider recommendations internally (up to five measures by each group – intrastate and regional) “within a silence procedure” lasting up to seven days (from the date of receipt of recommendations), after which they shall be delivered to the Ministry of Security of Bosnia and Herzegovina for consideration and finalisation in co-operation with co-organisers. The finalised recommendations with conclusions shall be published on websites of co-organisers and delivered to policy- and decision-makers to implement them in the spirit of good will, public accountability and availability of funds and resources.

2. RECOMMENDED MEASURES AND ACTIONS (IF IDENTIFIABLE)

Measures and actions to be taken by institutions and organisations who delivered recommendations by the end of November 2014 are presented in the following format (five intrastate and five regional prevention and readiness measures each):

I - INTRASTATE LEVEL

Prevention and Readiness Measures

- **M-1: Strengthen the professional inspection authorities and their inspection activities as well as oversight of inspection activities in all relevant areas in which non-implementation of regulations and inadequate regulations lead to flooding (urban and spatial planning, water supply management and other areas defined by law).**

The largest problem which caused flooding disasters in BiH lies exactly in illegal construction and inadequate infrastructure maintenance causing the mentioned disasters in 90% of the cases.

Institutions Involved: relevant ministries, inspectorates and Entity and Brčko District governments.



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Expected Co-ordination: relevant ministries and other relevant Entity and Brčko District authorities.

Expected Implementation Deadline: continually, with at least one annual report on inspections conducted and measures taken and with adequate public participation.

Proponent: Ministry of Civil Affairs of BiH

- **M-2: Ensure funds for developing hydrogeological and engineering geological maps of the territory of Bosnia and Herzegovina, which would contain data on soil stratification and its hydrological components to a certain depth, in order to adequately prevent and reduce disasters in BiH.**

Institutions Involved: relevant ministries, inspectorates and Entity and Brčko District governments.

Expected Co-ordination: relevant ministries and other relevant Entity and Brčko District authorities.

Expected Implementation Deadline: continually, with at least one annual report on inspections conducted and measures taken and with adequate public participation.

Proponent: Ministry of Civil Affairs of BiH

- **M-3: Set up an operational structure – water rescue teams, which will represent mixed protection and rescue units at the level of BiH, in line with the Framework Law on Protection and Rescue.**

Equipping and specialised training shall be conducted as per civil protection intervention modules standards set forth in the EU Civil Protection Mechanism (BiH is scheduled to join in mid-2015).

Consider the option that these teams, currently being equipped from international grants, become professionally operational across BiH, not only when providing assistance to other countries.

Institutions Involved: relevant civil protection authorities of Entities and Brčko District of BiH, Ministry of Security of BiH, Ministry of Defence and Armed Forces of BiH and other relevant authorities of importance to protection and rescue



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Expected Co-ordination: Ministry of Security of BiH.

Expected Implementation Deadline: by the end of 2015.

Proponent: Ministry of Security of BiH

➤ **M-4: Set up water rescue centres, water rescue and underwater search and rescue units in larger centres in Entities and Brčko District of BiH, in line with flood vulnerability assessment, gravitating towards larger rivers sub-basins**

Structure of this unit should comprise mostly professional protection and rescue personnel in Entities and Brčko District of BiH (firefighters and rescuers), professionally committed to respond immediately, along with strengthened diving, kayaking and other associations and civic organisations involved with immediate response actions.

Equipping and specialised training shall be conducted as per civil protection intervention modules standards set forth in the EU Civil Protection Mechanism (BiH is scheduled to join in mid-2015).

Institutions Involved: relevant civil protection authorities of Entities and Brčko District of BiH, Ministry of Security of BiH and other relevant authorities in Entities and Brčko District of BiH

Expected Co-ordination: Ministry of Security of BiH and relevant civil protection authorities of Entities and Brčko District of BiH.

Expected Implementation Deadline: in the course of 2015/2016

Proponent: Ministry of Security of BiH

➤ **M-5: Strengthen the role, importance and executive function of co-ordinating the flood protection and rescue measures in BiH through equipping, training and developing the skills of the Protection and Rescue Co-ordination Body of BiH, an expert team of the Council of Ministers of BiH, in line with its scope of competence defined by the Framework Law on Protection and Rescue.**



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Within the ongoing activities related to the post-electoral modifications to governmental compositions, it is necessary to ensure the implementation of the Framework Law on Protection and Rescue supervised by the Protection and Rescue Co-ordination Body of BiH, in accordance with the legal interpretation thereof.

Institutions Involved: Council of Ministers of BiH, governments of the Entities and Brčko District, ministries involved and other authorities involved in the work of the Body.

Expected Co-ordination: Ministry of Security of BiH.

Expected Implementation Deadline: by mid-2015.

Proponent: Ministry of Security of BiH

- **M-6: Set up a centre for protection and rescue staff training in Bosnia and Herzegovina to acquire skills in more specialised protection and rescue measures under international standards and best practices.**

It is hereby recommended that the Council of Ministers of BiH and governments of the Entities and Brčko District of BiH find solutions to set up and manage this centre as Joint Venture, with the support of international funding.

Facilities for training under the highest standards do not exist in BiH and the existing capacities do not meet the required criteria.

Running multiple centres is too expensive for the BiH economy. The proposed water rescue centres in the Entities and Brčko District of BiH would serve for continual tactical training; therefore, it would be recommendable to consider the option of joint funding with the donor support and with the development of an exit strategy for running the centre upon the expiration of international assistance.

An option of attending certain specialised training courses in the region and beyond is not excluded.

Institutions Involved: Council of Ministers of BiH, governments of the Entities and Brčko District, Ministry of Defence of BiH and relevant civil protection authorities of Entities and Brčko District of BiH.



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Expected Co-ordination: The BiH Ministry of Security and relevant Civil Protection bodies of the Entities and of the Brčko District.

Expected Implementation Deadline: 2015 – 2016

Proponent: Ministry of Security of Bosnia and Herzegovina

- **M-7: Strengthen inter-institutional co-ordination of the implementation of actions from the EU Floods Directive, at all the requested levels in BiH, both in the procurement domain (installation and networking of the mapping software and disaster risk assessment in the aftermath of floods) and in the domain of the planning and implementation of plans and of the trans-border information exchange on flood risks and measures from plans.**

Institutions Involved: Relevant ministries and other bodies of BiH, Entities and of the Brčko District (water management agencies, water management ministries, civil protection bodies, etc.).

Expected Co-ordination: The BiH Ministry of Foreign Trade and Economic Relations and the BiH Ministry of Security. Information to be provided regularly to governments in BiH and to the public.

Expected Implementation Deadline: Depending on the available budgetary resources and international resources, integration of plans, co-ordination of planning and the development of software for risk analysis and mapping in 2015 – 2016

Proponent: Ministry of Security of Bosnia and Herzegovina

- **M-8: Exert maximum effort to develop the Action Plan to implement climate change adaptation measures in BiH, in accordance with the global document of CFFAP and with the EU strategy on adaptation to climate change**

The measure is recommended having in mind the marked harmful effects of climate change and global warming, through manifested changes in the atmosphere and the hydrosphere and more frequent rains and floods, stormy winds followed by hail, as well as other phenomena which are not typical for this area.



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Institutions Involved: Inter-Ministerial Working Group consisting of key ministries and other administrative bodies and experts from the levels of BiH and of the Entities.

Expected Co-ordination: The BiH Ministry of Civil Affairs, with the participation of other key ministries

Expected Implementation Deadline: During 2015 – 2016

Proponent: BiH Ministry of Security.

- **M-9: In light of the global campaign “Making cities resilient: my city is getting ready!” increase the number of local self-government units in this campaign, and introduce the practice of local self-government units marking the campaign once a year, under the same or similar title, with increased public communication about risks, for the purpose of developing and raising public awareness about disasters (floods, etc.).**

Actions:

- Access of the interested local self-government units to the above-mentioned global campaign and active monitoring of campaign activities,
- Introducing the practice of local self-government units organising public events and activities concerning risk reduction of floods and other disasters (disaster risk reduction days, seminars on risk reduction, local RTV shows raising awareness of disaster risks, promotion of Civil Defence commissioners, etc.),
- Availability of risk assessments, as well as protection-and-rescue plans to the public; making it possible for the public to influence those issues (through inter-institutional communication, mass communication – authorities speaking to the public, through the organisation of thematic citizen forums, through the media...).

Institutions Involved: Local self-government units in Entities, the Brčko District, relevant ministries and other administrative bodies in the Entities, non-governmental sector, international organisations and the media.



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Expected Co-ordination: The BiH Ministry of Security, the BiH Ministry of Civil Affairs (in their approach to schools) and relevant Civil Protection bodies of the Entities and of the Brčko District.

Expected Implementation Deadline: During 2015 – 2016

Proponent: BiH Ministry of Security.

- **M-10: Development of the cadastre of landslides, rockslides and potential danger zones and the adoption of the Unified Methodology for the Stabilisation of Hillsides, with the aim of implementation of urgent measures (infiltration of precipitation waters into fissures, controlled drain of the water from the landslide area and other measures).**

Actions:

- Relevant administrative bodies and local communities to assess the situation regarding landslides and rockslides in their respective areas,
- In accordance with the previously developed and adopted “**Unified Methodology for the Stabilisation of Hillsides**”, prepare and adopt the “**Program of Protection from Landslides and Rockslides**” (taking into account the specificities of BiH, the programs in the Entities may have certain differences in content, but they have to be developed in accordance with the same methodology and to be compatible),
- Implementation of general measures for protection from landslides and rockslides (e.g. legislative measures, development of the cadastre of the status of landslides and rockslides, monitoring of the process of landslides and rockslides development, trainings provided to the population, integration of the issue of the protection from landslides and rockslides into urban planning, basic forestry management documentation and, of course, into planning documentation of the relevant body. Landslides and rockslides may be significantly decreased through proper cultivation of land and preservation of vegetation),
- Development and application of tailor-made software – database of landslides, rockslides, soil subsidence of the potential landslide danger zone with supporting land survey maps, geological maps, hydro-geological maps, photo documentation and a description of geological units for each individual location, with the aim of implementing urgent recovery measures, as well as permanent recovery measures.



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- Recovery of damage sustained from landslides and rockslides, without disturbing the environmental balance and with clear criteria (inter alia, importance and priority of the facility, degree of danger from landslides and rockslides, justifiability of work – degree of cost-effectiveness, etc.).

Institutions Involved: Relevant ministries of agriculture, water management, environment, tourism and urban planning.

Expected Co-ordination: Relevant bodies at the lower levels of government in charge of agriculture, water management, geology, environment, tourism and urban planning.

Expected Implementation Deadline: During 2015

Proponent: FBiH Civil Protection Administration

- **M-11: Amendments to the Unified Methodology for Damage Assessment from Natural and Other Disasters with special emphasis on the simplification of procedures in the damage assessment process and the consistent implementation of the chain of institutional authority.**

Actions:

- Preparation and development of a draft of the Unified Methodology for Damage Assessment from Natural and Other Disasters in accordance with the law,
- Public debate and receipt of an opinion from the relevant bodies,
- Adoption of the regulation and its publication in the “Official Gazette”.

Institutions Involved: Relevant Civil Protection/rescue and protection bodies, governments, academic community and non-governmental sector.

Expected Co-ordination: Governments and relevant ministries and administrative bodies, municipal/city mayors and relevant services.

Expected Implementation Deadline: End of 2015

Proponents: FBiH Civil Protection Administration and Brčko District Department of Public Safety.

- **M-12: Update and amendment to the flood defence plan in the Brčko District.**



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(A measure for the Brčko District, but also recommended to all the local self-government units).

Actions:

- Determine shortcomings of the existing flood defence plan, as well as which preventive measures need to be included and implemented in order to lessen the consequences of floods;
- Send the plan to the Government of the District for approval;
- Formation of a mixed unit for Surface Water Rescue and Underwater Rescue, consisting of approximately 80 members.

Institutions Involved – main actors: the Department of Public Safety – Section for Protection and Rescue and the Department of Agriculture, Forestry and Water Management.

Expected Co-ordination: Departments of the Government of the Brčko District

Expected Implementation Deadline: First three months of 2015

Proponent: Brčko District Department of Public Safety.

➤ **M-13: Hold this kind of a conference once a year, with regional participation, in the cluster format recommended in the EU Water Framework Directive**

The conference would have to be organised in three segments: 1. Civil Protection - importance, role and measures, 2. Protection of hydro-technical facilities – flood management (control and risks), 3. Landslides.

The measure should be implemented through actions which cover the following: inclusion of the conclusions and recommendations from this conference into the agenda of the next one, and the implementation of the conclusions with appropriate monitoring of the key institutions and support from the international organisations.

Institutions Involved - Main actors: the organisers.



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Expected Co-ordination: Organisational body – stakeholder institutions per component.

Expected Implementation Deadline: Once a year.

Proponent: Inspectorate for Water Management of the Government of the Republika Srpska

- **M-14: Institutional provision of targeted financial resources – for abatement of dangerous matters harmful to the sources of potable water and to agriculture** (coal waste disposal sites – Sase mine, bauxite mine in Zvornik and others in the region, e.g. antimony mine in the Republic of Serbia, etc.), **with intergovernmental co-ordination** (regional problem).

The measure should be implemented through actions mentioned below, in BiH and in the region, through the Sava River Commission and/or other intergovernmental agreements and initiatives:

Action 1: Formation of an expert team to review the current state of coal waste disposal sites of dangerous matters, as well as an interstate exchange of relevant information on dangerous matters.

Action 2: Proposal of measures and the endorsement of the financial implementation plan.

Action 3: Abatement and recovery of the coal waste disposal sites.

Institutions Involved: Main actors: governments in BiH and governments of SEE countries.

Expected Co-ordination: Sava River Commission, or through another regional organisation, to form a team consisting of inspectorates of Member States.

Expected Implementation Deadline: Three (3) years.

Proponent: Inspectorate for Water Management of the Government of the Republika Srpska

- **M-15: Apart from the monitoring of the quantities of waters, one must monitor the quality of waters, plus ensure regional co-operation through**



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relevant institutions (example: toxic concentration of the dangerous matter of cyanide in the Bosna River in the area of the city of Dobož during the floods in May this year; the consequence: contamination of soil and water).

The measure should be implemented in BiH and in the region, through the Sava River Commission and/or other intergovernmental agreements and initiatives.

Action 1: Designation of monitoring points.

Action 2: Collection of results.

Action 3: Processing of results.

Institutions Involved: Relevant ministries or water management institutions.

Expected Co-ordination: Through the relevant BiH ministry and the Sava River Commission or by establishing commissions per sub-basins, involving inspectorates of Member States (districts, e.g. district of the Drina River).

Expected Implementation Deadline: Two (2) years

Proponent: Inspectorate for Water Management of the Government of the Republika Srpska

- **M-16: Planned, coordinated across sectors and controlled recultivation of big open-pit mining areas (recultivation is not done adequately) and prohibition of unplanned / uncontrolled deforestation as one of the causes of soil erosion, landslides and flash floods.**

This measure requires revision, harmonization and implementation of legislation as well as inter-institutional systemic management and supervision in the area of: spatial planning, forest management, energy, mining, geology, rescue and protection etc.

Action 1: establishment of cooperation between the relevant institutions.

Action 2: harmonisation of legislation at the level of SEE.

Action 3: monitoring of implementation of the agreed activities.

Institutions Involved – principal stakeholders: relevant ministries.



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Expected Coordination: establishment of a joint coordinating body to include inspection authorities of member states.

Expected Implementation Deadline: one to two years.

Proponent: Water Management Inspectorate of Republika Srpska Government.

- **M-17: It is necessary to develop methodology for surveying and stabilization of landslides. The methodology would include a wide array of measures aiming at protecting human lives and assets in landslide areas. Coordination of several institutions is recommended in the process of development of the methodology.**

Institutions Involved: relevant ministries, academic community and non-governmental sector.

Expected Coordination: establishment of interministerial working group – team of experts from different institutions involved.

Expected Implementation Deadline: one to two years.

Proponent: Faculty of Mining, Geology and Civil Engineering in Tuzla, (Prof. Dr. Sabit Zekan).

- **M-18: Strengthening of hydro-meteorological forecasting and early warning (monitoring, measuring and development of meteorological and hydrological forecasting models).**

Actions:

- Set up as many automatic weather stations as possible, enabling collection of „real-time“ data for the purpose of hydro-meteorological forecasting.
- Strengthen forecasting capacities, including membership in ECMWF, EUMETSAT and ALADIN.
- Train staff in hydro-meteorological forecasting.

Institutions Involved – at the level of the FBiH: Federal Hydro-Meteorological Institute, Federal Ministry of Water Management, Agriculture and Forestry, agencies for river basin areas, Federal Civil Protection Administration etc., relevant state level ministries.



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Expected Coordination: Federal Hydro-Meteorological Institute in the FBiH and Republic Hydro-Meteorological Institute in the RS.

Expected Implementation Deadline: development of the above listed capacities should take place between 2015 and 2017, while training activities should be implemented continuously and should start as soon as possible.

Proponent: Federal Hydro-Meteorological Institute.

M-19: Introduction of radar measuring for the purpose of strengthening of forecasting capacities.

Actions:

- Nowcasting (strengthening of immediate and short-term forecasting capacities covering the period of 0 to 6 hours ahead),
- Provision of necessary technical and human resources for radar measuring.

Institutions Involved: Federal Hydro-Meteorological Institute in the FBiH, Republic Hydro-Meteorological Institute in the RS, BiH Ministry of Security and BiH Ministry of Civil Affairs.

Expected Coordination: Federal Hydro-Meteorological Institute in the FBiH and Republic Hydro-Meteorological Institute in the RS

Expected Implementation Deadline: development of the above listed capacities should take place between 2015 and 2017, while training activities should be implemented continuously and should start as soon as possible.

Proponent: Federal Hydro-Meteorological Institute.

Measures Recommended by the Republic Civil Protection Administration of the RS

- The relevant bodies should undertake additional measures to improve mechanisms of coordination and strengthen mutual cooperation and trust in BiH, in compliance with the provisions and competences mandated under the laws in effect in the area of protection and rescue.
- Provide additional support in provision of equipment and training for protection and rescue institutions in local communities at risk of flooding;



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Relevant bodies should undertake additional efforts to implement preventive measures of flood protection.

- Relevant entity and Brčko District institutions should analyse legislation and implementation of legislation of relevance to rescue and flood protection and undertake necessary measures to improve implementation of regulations which could result in better organisation and functioning of all legal entities in the society in the area of rescue and flood protection;
- Legal entities of importance to flood related rescue and protection activities should analyse the existing flood risk assessments and conduct additional analyses of scenarios and capacities and update plans and other documents accordingly.
- Entity and Brčko District governments should consider the need and possibility for establishment of and provision of equipment and training for a special team for flood related rescue and protection activities to operate at the level of entities and Brčko District of BiH;
- In communication with the media, entities responsible for rescue and protection operations should restrict their statements to matters within their scope of competence and refer the media to other relevant bodies and institutions for questions outside their scope of competence;
- Additional measures should be undertaken to raise awareness of citizens of flood risk with particular emphasis on need and importance of preventive action and necessity of property insurance.

Measures recommended by other conference participants from academic and non-governmental sectors

Ideal approach would be to combine structural with non-structural measures.

Steps identified:

- Integrate flood risk assessments in sectorial plans (spatial planning, energy, agriculture...);
- New monitoring stations to facilitate functioning of the early warning system and development of forecasting models;



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- Prepare municipal preparedness and response plans in the event of occurrence of flood;
- Construction in inundation areas to be adapted to the anticipated flood events (e.g. construction on pillars, waterproof floor materials, position of walls and electrical switches, cables and devices to be at higher than usual level).
- Raise awareness of the community of risks of construction in inundation areas.

Proponent: Water Engineering Institute of the Civil Engineering Faculty in Sarajevo.

II - International / Regional Level

Recommendations of institutions and bodies of BiH, entities and Brčko District of BiH

- **M-1: Revise bilateral agreements on cooperation in rescue and protection operations signed with neighbouring countries and update them to include prevention and preparedness measures of relevance to cross border disaster risks, as and when needed.**

In the process of revision and update of the agreements, some of the key issues included in the new risk assessments and international instruments of flood protection should be incorporated. These include, for instance, the regimen of use and release of water from accumulations during the period of substantial inflow of water into riverbeds and areas of cooperation in prevention and preparedness for floods and other hazards, as a part of implementation of EU Flood Directive and assessment and management of flood risk which require joint planning activities and implementation of preventive measures.

In implementation of these activities, active cooperation with the Sava Commission is recommended.

The measure specifically relates to inclusion of elements of risk assessment and international commitments in the area of prevention of hazards and disasters other than floods (e.g. fire, cross border radiation incidents, industrial incidents, infectious diseases pandemics, earthquakes, etc.).

Actions:



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- Initiation of working meetings of trans-national committees for cooperation with neighbouring states, for the purpose of implementation of joint activities of assessment of risk and identification of areas for intervention within the existing agreement.
- Analyse, within trans-national committees, the need for establishment of subcommittees for other areas of disaster risk assessment (specific risks which lead to disasters as assessed in state documents), with the work of those subcommittees (for instance, subcommittee for floods) to reflect joint agreement on the regimen of use and release of water when heavy rainfall is expected, and other issues (the agreement is a contractual document on cooperation between two governments which, in some areas, may include ad-hoc approach or involvement of several sectors).
- Implementation of the procedure of adoption of amendments to the agreements.
- Sava Commission to be involved on an ad-hoc basis in the work of trans-national committees, in addition to involvement of other relevant international organisations actively involved in key areas (joint projects, cross-border harmonisation of assessments and plans, etc.).

Institutions Involved: Council of Ministers of Bosnia and Herzegovina (BiH Ministry of Foreign Trade and Economic Relations, BiH Ministry of Security, BiH Ministry of Civil Affairs), relevant entity and Brčko District ministries and administrative bodies, as well as neighbouring states and their relevant ministries.

Expected Coordination: BiH Ministry of Security.

Expected Implementation Deadline: by the end of 2015.

➤ **M-2: Strengthening of cooperation and coordination between relevant institutions of the states involved in the flood protection system (hydrometeorology...).**

Actions:

- Exchange of data and information at state and regional level,



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- Standardisation of procedures and protocols for measuring and data processing and exchange,
- Regional integration of hydro-meteorological services in terms of development of regional climatic products (SEECOF forum, seasonal forecast).

Institutions Involved: hydro-meteorological institutions in BiH (relevant state and entity level ministries) and countries of the region.

Expected Coordination: BiH Ministry of Civil Affairs.

Expected Implementation Deadline: by the end of 2015.

➤ **M-3: Organisation of training and exercises based on the scenario of cross-border flood (with other related risks, such as snow, landslides etc.) through trans-national cooperation and with international support.**

- Institutions Involved: relevant institutions of BiH and the region.
- Expected Coordination: relevant ministries of participating states (bilateral cooperation is realistic, while multilateral cooperation is desirable).
- Expected Implementation Deadline: during the period between 2015 and 2016 two TTX exercises, preceded by planned conferences are planned to take place (with possibility of targeted training and appropriate related events, e.g. workshop followed by exhibition of equipment, etc.).

RECOMMENDATIONS OF THE EUROPEAN INSTITUTIONS

European meteorological institutions and ERCC EU (Centre for coordinating responses to emergencies of the European Union) predict the appearance of extraordinarily heavy rainfall in spring 2015, and a high likelihood of flooding on a larger scale. It is recommended that timely measures for prevention and preparations.