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# Findings and Recommendations the former Yugoslav Republic of Macedonia

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## Glossary

APSFR	Areas with Potential Significant Flood Risk
COWI	Consortium that from January 2010 and for four years supported fast and efficient development of infrastructure in the Western Balkans
EUFD	European Union Floods Directive [Directive 2007/60/EC of the European Parliament and of the Council on the assessment and management of flood risks]
EUWFD	European Union Water Framework Directive [Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy]
FH&FRM	Flood Hazard and Flood Risk Maps
FRMP	Flood Risk Management Plans
INSPIRE	Infrastructure for Spatial Information in Europe
IPA2	EU Instrument for Pre-Accession Assistance to candidate countries, regulation II adopted in March 2014



LSGU	Local self-government units
MoEPP	Ministry of Environment and physical planning
PFRA	Preliminary Flood Risk Assessment
RBD	River Basin District
WISE	Water Information System for Europe
WME	Water Management Enterprises

## 1. Legal and Institutional Framework for Flood Risk Management

Taking into account the legal framework and the institutional capacity at national level, the implementation of EUFD in the Former Yugoslav Republic of Macedonia is at an early stage.

Flood risk management is organized mainly according to the former Yugoslav Republic of Macedonia Law on Water (Official Gazette of RM, No. 87/08), containing separate chapters concerning "protection from adverse effects of waters". Few other laws contain articles related to this topic, as for the regulation on: crisis management, municipality self-governance, protection and rescue, spatial and urban planning, forests. The National strategy on water management, in line with the law, contains chapters on the adverse impacts of waters.

The Table of Concordance (2015) for "Monitoring transposition and implementation of the EU environmental acquis" highlights that the transposition of EUFD is planned but not started yet .

*It is recommended to review the planned timeline for the years of transposition and to produce separated strategic documents, plans and a strategic framework specifically on flood management, aimed to improve the current situation and to schedule a plan for implementing the EUFD: the Table of Concordance quoted above and its associated timeline should be considered as a starting point for the full transposition of the EUFD.*

*Secondly, it is recommended to clarify roles, mandate and responsibilities of national and local institutions/agencies/authorities for conducting PFRA, FHM&FRM and for elaborating FRMP for each unit of management.*

## 2. Units of Management

Local Self-Government Units (LSGU) and Water Management Enterprises (WME) are responsible for assessment and management of flood risks in their respective areas. Areas not falling within the jurisdiction of LSGUs or WMEs are responsibility of the Ministry of Environment and physical planning (MoEPP). The management of the whole system is not in line with the prescriptions of WFD and lacks the principle of river basins management. Moreover, the existence of international basins adds importance to the need for a substantial change in the policy of management.

*It is strongly recommended to design and adopt a new management system built up on EUWFD and EUFD principles, namely River Basin Districts and associated management Authorities.*

## 3. International River Basin Authorities

Preventive flood control of international basins is planned through cooperation with competent authorities from other states in accordance with the accepted multilateral and bilateral agreements on cooperation in water management.

Some important attempts on coordinating water management at trans-national level are: the “Memorandum of understanding for the Management of the Extend Transboundary Drin Basin” signed in Tirana in November 2011 by Ministers of the Water and Environmental management of Albania, the former Yugoslav Republic of Macedonia, Greece, Kosovo\* and Montenegro; the Joint Conclusions for the development and deepening of regional cooperation in the field of crisis management between the Republics of Albania, Kosovo\* and the former Yugoslav Republic of Macedonia, signed in Skopje on 27<sup>th</sup> May 2011 by the directors of the different institutions.

*It is recommended to build up on the already existing agreements for the definition of proper international units of management or at least national units of management coordinated at international level.*

*It is recommended to promote the creation of multi-national River Basin councils in collaboration with neighborhood countries on the base of existing international agreement, similar to the running "Memorandum of understanding for the Management of the Extend Transboundary Drin Basin".*

#### 4. Preliminary Flood Risk Assessment

Spatial data concerning floods are not systematically collected in the country, and there is not a structured dataset of past floods. The assessment of flood risk developed till now by various institutions showed that the existing flood control structures no longer perform their main purpose, mainly because of previous poor maintenance (COWI, *Flood prevention and management, gap analysis and need assessment in the context of implementing the EU Floods Directive*, September 2015); these systems are inadequate even for an effective protection of frequent flood events; the potential for flood mitigation by adjusting the operating regimes of existing reservoirs is not adequately used too.

*It is recommended to proceed with an extensive survey of the status of flood control structures in order to plan positive interventions in reducing the flood risks and enhancing the resilience of communities in each basin.*

*It is recommended to develop and adopt common methodologies and techniques (e.g. historical flood data collection or criteria to define relevant floods of the past) for Preliminary Risk Assessment as required by EUFD and to identify Areas with Potential Significant Flood Risk. The "Guidelines for the implementation of EU Floods Directive and MSs good practices" developed by IPA Floods Programme should be used as reference for the methodology.*

*It is further recommended to implement a training/capacity building program dedicated to the institutions that will receive the mandate for conducting PFRA.*

#### 5. Flood Hazard and Flood Risk Mapping

FH&FRMs compliant with EUFD don't exist yet, and it seems they are going to be prepared for each river basin in the framework of IPA2 program.

*It is recommended to produce maps at national level compliant with EUFD, and to elaborate flood hazard and risk mapping for all units of management, with special agreements for the international ones, starting from existing regional flood and water management platforms: an example is the Drin Core Group following the principles laid down in the Memorandum of Understanding for the management of Drin Basin by Albania, Greece, the former Yugoslav Republic of Macedonia, Kosovo\* and Montenegro.*

*It is recommended to develop and adopt a common methodology for Flood Hazard and Flood Risk Mapping based on the experience gained during the implementation of different completed projects, in compliance with EUFD provision and Member States Good Practices. The "Guidelines for the implementation of EU Floods Directive and MSs good practices" developed by IPA Floods Programme should be used as reference for the methodology.*

*Secondly, it is recommended to implement a training/capacity building program dedicated to national institutions and stakeholders that will have the mandate for conducting Hazard and Risk Assessment in the whole country.*

## 6. Flood Risk Management Plans

The Water Strategy, the National Security Strategy, as well as the Law on Crisis Management are the founding documents of the flood management related activities. The development of the detailed River Basin Management Plans, including flood management chapters, has not started yet.

There are, however, some already existing initiatives to be considered, for example on the Prespa Lake and the Strumica River: flood risk management plans for each RBD, will be prepared in the framework of IPA 2 program.

*It is recommended to develop and to implement EUFD compliant FRMPs, and to ensure their harmonization with the already existing emergency plans developed in the framework of civil defense and civil protection, with particular attention to transboundary issues connected with operational FRMPs.*

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

*It is recommended to invest in the upgrade of the early warning systems and in instrumentation (e.g. automatic monitoring stations, radar); moreover a proper maintenance plan should be developed.*

*It is recommended to develop Standard Operating Procedures (SOPs) starting with the definition of alert codes, the assignment of thresholds and the development of new hydrological/meteorological studies.*

## 7. Data Sharing and Data Information Systems

At national level and among primary stakeholders the distribution of scientific and geospatial data is still to be planned and discussed and the local production of data has to be improved.

*Among the first steps, it is recommended to proceed to a national inventory of existing sources of information related to water management, and to connect eventually already existing environmental and disaster information systems, including those produced in cross-border basins, so to develop or adopt inter-institutional procedures that facilitate the exchange of information.*

*It is recommended to develop a common data sharing policy framework among national and international institutions, organizations and general stakeholders, in order to facilitate the circulation of data, to access information to be used in the whole process of floods management and adopting standards for geospatial data in line with the WISE system and EU INSPIRE Directive.*

*It is recommended to develop an integrated data information system for collecting, recording and sharing flood risk information and map for PFRA and FH&FRM. The system should allow the recording of historical floods in line with the guidance document of the EUFD. The Flood Risk Information System, developed under IPA Floods, should be used as an asset for addressing this recommendation.*