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Findings and Recommendations

SERBIA

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Glossary

APFSR	Areas with Potential Significant Flood Risk
DEWETRA	IT platform aimed at the prediction, prevention and monitoring of hydro-meteorological and forest fires risks
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
ICPDR	International Commission for the Protection of the Danube River
INSPIRE	Infrastructure for Spatial Information in Europe, Directive 2007/2/EC
LoW	Law on Water
PFRA	Preliminary Flood Risk Assessment
WISE	Water Information System for Europe



1. Legal and Institutional Framework for Flood Risk Management

The Law on Water [LoW] (“Official Gazette of RS” No. 30/10, 93/12), which incorporates the EUWFD, represents the legal basis for the implementation of the prescriptions of EUFD, however it only contains the basic requirements of EUFD. The LoW regulates all aspects related to water and the phases of implementation, including measures and works for flood controlas included into the General and the Annual Plan for Flood Defenceand in accordance with the Law on Emergency Situations.

The distribution of competence on water management changes in consequence of the scale (national level or local level) and the orders of rivers.

It is recommended to complement the LoW with the required bylaws on risk assessment and management in line with the provisions of EUFD. Since many laws and new regulations are under development or in phase of approval, it is recommended to foster the process of adoption on the new regulatory framework.

2. Units of Management

The water management applies within water districts as administrative borders, that represent the legal Units of Management, and are not in line with the prescriptions of EUWFD since they are defined merely on administrative principles and not on the logic of river basins.

The existence of international basins of great extent and importance adds urgency to the need for a substantial change in the policy of management.

It is expected that the Unit of Mangements envisaged in the new regulation will be based on geomorphological criteria rather than administrative border as currently it is: it is recommended to foster the process of approaval of the new regulation.

3. International River Basins

With regard to transboundary issues, international river basins are in Serbia of primary importance. Serbia is a member of the International Sava River Basin Commission (ISRBC) that puts all countries within the Sava River Basin on the same platform and provides high quality assistance for international co-operation in the field of navigation, water and flood management.

The Flood Experts Group of ISRBC has prepared a Protocol on Flood Protection that supplements the **Framework Agreement on the Sava River Basin** for its implementation. The Protocol has been ratified by all Parties and explicitly refers to the approximation of EUFD, setting 6 areas of activity:

- a. Preparation of the Flood Risk Management Plan of Sava River
- b. Undertake Preliminary Risk Assessment
- c. Preparation of Flood Maps
- d. Development of Flood Risk Management Plan in the Sava River Basin
- e. Establishment of the Flood Forecasting, Warning and Alert system in the Sava river Basin
- f. Exchange of information significant for sustainable flood protection
- g. Implementation of all measures and activities originating from planning documents

The Protocol refers to the EUFD for PFRA, FRMP and FHM and it specifies that the Sava Commission will coordinate the development of a joint methodology for flood mapping to be applied in the entire river basin.

It is recommended to promote the full implementation of the Protocol on flood protection. Secondly, it is recommended to use ICPDR plan to build plans at lower level.

4. Preliminary Flood Risk Assessment

The largest potentially flooded areas are along the Danube, Tisza, Sava, Drina, Velika Morava, Južna Morava, and Zapadna Morava rivers; approximately 1.500.000 people in Serbia are directly or indirectly endangered by potential future fluvial floods. PFRA in Serbia has been prepared for the whole territory and with the active participation of all responsible institutions. Since APSFR have already been detected in first release:

it is recommended to widen the studies, by considering Climate Change effects and flash floods in the release planned within 2018;

it is recommended to optimize the already on-going collection of data regarding past floods using a unique platform at national level and taking into account the “User Guide to the floods reporting schemas” provided by the EC: the Flood Risk Information System based on FloodCat and proposed under the IPA FLOODS project could be used.

5. Flood Hazard and Flood Risk Mapping

The production of flood hazard maps and flood risk maps for the areas identified under Article 5.1 of EUFD, taking into account also international basins, is in progress. Slightly different methodologies for flood risk assessment were used in the floodmapping.

It is recommended to develop and adopt a common and harmonized methodology for Flood Hazard and Risk Mapping, 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 could be used as reference for the methodology.

Secondly, it is recommended to implement an active 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. FloodRisk Management Plans

FRMPs coordinated at the level of UoM are at an early stage or mostly developed as part of international initiatives such as the International Commission for the Protection of the Danube River (ICPDR). The first cycle has to be prepared within 2017 for the territory of the Republic of Serbia and for water districts, with the available maps.

The draft River Basin Management Plan for the Danube River Basin has been released for public review at the end of 2015. Within the environmental objectives and program of measures, the River Basin Management Plan also contains objectives of flood risk management.

It is recommended to promote a close cooperation between institutions involved in water management that are the Republic Directorate for Water, Public Water Management Companies and competent emergency management authority and other institutions involved in the flood risk management plan, in order to ensure operational value of FRMPs, which have to be focused on prevention, protection, preparedness, response and recovery. This aspect should be expressed in details also due to the important new legislation and changes on civil protection that are in progress in the country.

It recommended to take into consideration the ICPDR strategy and already existing programs.

7. Data Sharing and Data Information Systems

At national level and among primary stakeholders the distribution of scientific and geospatial data, at least related to planning and management of water, is affected by serious shortcomings. The situation is even more deficient when sharing information between national and local levels.

However, many data information systems already exist or are in a fase of advanced development; at least they have to be reported: the portal of Republic Geodetic Authority, which can be considered an excellence of the Balkan region in content and technology; the shared information system developed by the International Sava River Commission; the platform DEWETRA in prototype version for the Sector of Emergency Ministry of Interior, Hydro-Meteorogolcial Service and Water Companies.

The challenge for the country is to properly coordinate the different initiatives and focus the investments for the next future.

It is recommended to develop and adopt a data sharing policy framework among national and international institutions, organizations and general stakeholders to access flood risk data and maps: under this premise, a national survey and inventory of data and providers should be done.

It is further recommended to adopt standards for geospatial data in line with WISE system and INSPIRE Directive.

It is recommended to connect existing systems (national geoportal, DEWETRA) and to establish a full interoperability with regional systems such as the Flood Risk Information System under development in IPA FLOODS.

It is recommended to further develop the current systems in use in order to improve the collection, recording and sharing of flood risk information and maps for Preliminary Flood Risk Assessment and

Flood Hazard and Flood Risk Mapping. The system should allow the recording of historical floods in line with the guidance document of the EU Floods Directive.

It is recommended to develop Standard Operating Procedures (SOPs) for coordinated actions of prevention and intervention, with particular focus on data and information sharing in pair with an efficient application of EUFD.