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*Zagreb, October 5, 2017*

# **16<sup>th</sup> PEG GIS Meeting Report**

*Zagreb, October 5, 2017*

Venue: Secretariat of ISRBC, Kneza Branimira 29, 10000 Zagreb, Republic of Croatia

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## **I. ATTENDANCE**

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The PEG members from Slovenia, Croatia, Bosnia and Herzegovina and Serbia attended the meeting. The meeting was also attended by the representatives of the ICPDR Secretariat. The Consultant representative from EPTISA engaged, within the Sava FRMP project, for design and implementation of the FRMP database module in SavaGIS, also participated at the respective agenda item.

The list of participants is annexed to this report.

## **II. CHAIRMANSHIP**

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Mirza Sarač, Chairman of the PEG GIS, chaired the meeting.

## **III. ADOPTED AGENDA**

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### **1. Opening of the meeting**

- Welcome and opening remarks
- Adoption of the agenda

### **2. Overview of the activities between the two meetings**

- Presentation on the ISRBC activities
- Tasks and duties regarding conclusions from the previous PEG meetings

### **3. GIS data collection**

- 1<sup>st</sup> Sava FRMP cycle - review of collected data
- 2<sup>nd</sup> Sava RBMP cycle - data needs & discussion
- Metadata collection - data needs & discussion

### **4. Sava GIS**

- Current status - DEMO
- Data access - presentation on system usage & discussion

### **5. Sava GIS further developments**

- Introduction
- Design and implementation of the FRMP database module - presentation of the draft proposal
- Discussion

### **6. Other issues**

## **IV. MINUTES OF THE MEETING**

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### **AD 1. OPENING OF THE MEETING**

#### *Welcome and opening remarks*

M. Sarač opened the meeting and welcomed the participants. He also provided the information on certain logistical issues.

#### *Adoption of the Agenda*

PEG GIS adopted the agenda of the 16<sup>th</sup> PEG GIS meeting (*Ad.1\_PEG GIS 16<sup>th</sup>\_meeting\_Adopted Agenda*, Doc. Ref. No.: 3-17-8/2-2).

### **AD 2. OVERVIEW OF THE ACTIVITIES BETWEEN THE TWO MEETINGS**

#### *Presentation on the ISRBC activities*

D. Zeljko, the Secretary of ISRBC informed the PEG GIS on the most important activities and events since the last 15<sup>th</sup> PEG GIS meeting held in March 2017, as well as on the upcoming meetings and events.

He informed the PEG GIS on personnel changes in the Secretariat, such as the appointment of the new Secretary and Deputy Secretary, as well as changes of the Chairman and Deputy Chairman in PEG GIS. Furthermore, ISRBC expert groups' member lists have been consolidated. Mr. Zeljko also pointed out that following the repeated procurement procedure, an IT-GIS expert on a short-time basis was finally engaged.

D. Zeljko informed the PEG members on the development of the Joint Plan of Actions (JPA) for the Sava River Basin, prepared by the Secretariat with technical support provided by the individual experts from the Sava countries. He stressed that a first initiative for the preparation of such document came from the Sava Commission Chairman during his attendance at the World Bank Week held in March 2017, in Washington, US. The JPA which defines the priorities and plans in the integrated water resources management with the main objective of sustainable development in the Sava River Basin. D. Zeljko emphasized that the JPA along with the Joint Statement was adopted by the Sava Commission at their 46<sup>th</sup> Session, noting that the documents were previously supported by Montenegro as well. The document and its executive summary were already delivered to the relevant institutions from the Parties of FASRB and Montenegro and were presented at the 2017 Western Balkans Summit which was held in Trieste, Italy and therefore the JPA document was delivered to the Italian Government. Mr. Zeljko also pointed out that the JPA document will be further used for the purpose of finding the financial resources for the drafting of the 2<sup>nd</sup> Sava RBMP as well as for development of the Action Plan of the Strategy on Implementation of the FASRB for the next period of planning.

The JPA document will be placed at the PEG's ftp site for the general overview.

D. Zeljko also informed the PEG GIS on the current status of the projects regarding river basin management, flood management, information exchange and navigation, as well as and on the status of protocols.

More information on other activities and events can be found in presentation (*Ad.2\_Presentation on ISRBC activities\_PEG GIS 16*), available at the PEG's ftp site.

#### *Tasks and duties regarding conclusions from the previous PEG meetings*

M. Sarač briefly presented an overview of the tasks and duties regarding conclusions from the previous PEG meetings (since the 14<sup>th</sup> meeting) and reminded the members on current status of completion.

After a short discussion the following was agreed:

- Promotion of the Sava GIS Geoportal as a banner and link at the national websites should be done as soon as possible, and the Secretariat will deliver the unique logo of banner

- PEG GIS will deliver the list of national WMS/WFS services (URLs) for 'Add external OWS layer' tab by December 01, 2017
- Documents for 'Template' tab will be posted by the Secretariat so no action is going to be provided by PEG GIS until some specific needs
- PEG GIS will check and send the comments to the list of layers publicly available on the Geoportal by December 01, 2017. This is relates mainly to the PEG members from Slovenia for the data on dams
- PEG GIS will review and check data in the central RBMP SavaGIS database used for the 2<sup>nd</sup> SRBA and import all missing attribute data, in accordance with the conclusion of the agenda item 3 (see below)
- PEG GIS will check and import the remaining data in the central FRM SavaGIS database by November 15, 2017, in accordance with the presented list of missing datasets by countries:
  - *PFRA dataset for BA Fed, BA RoS*
  - *Flood Hazard Maps for BA RoS*
  - *Flood Risk Maps for all countries*
  - *Flood protection structures for BA RoS, HR, SI.*

### **AD 3. GIS DATA COLLECTION**

#### *1<sup>st</sup> Sava FRMP cycle - review of collected data*

M. Sarač shortly informed the PEG GIS that large amount of data related to flood risk management were uploaded in Sava GIS so far. The following FRM related datasets are currently available in the central Sava GIS FRM database:

- PFRA (for HR, SI, RS)
- APSFR (for all countries, except ME)
- Flood Hazard Maps (for HR, SI, RS, BA Fed)
- Flood protection structures (for BA, RS).

He stressed that the available datasets for PFRA and APSFR provide a very useful components for further consultant`s work on development of the Sava FRMP, and pointed out that the Flood Hazard Maps were delivered by all countries except Montenegro (although only partially by BiH, for one entity). M. Sarač emphasized that Croatia has done a lot on the upgrade of FH map related data, and stressed a similar need to be done for the Slovenian data. The PEG members from Slovenia supported a proposal that the maps for one specific flood hazard area, which are currently divided in several polygons, should be merged. With regard to the Flood Risk Maps, he stressed that only the EU member countries (Croatia and Slovenia) finalized the FR maps, and Bosnia and Herzegovina (for one entity) had prepared the draft maps. Bosnia and Herzegovina delivered data in GIS format, but the data should be transformed into Sava GIS format, while maps for Croatia and Slovenia are still not delivered to SavaGIS, due to a different original format of maps in comparison with Sava GIS which is in accordance with the Guidance for Reporting under the Floods Directive.

The PEG took note on the information and concluded:

- PEG GIS members from Bosnia and Herzegovina will upload the remaining Flood Hazard Maps for the Vrbas River Basin in the entity of Republika Srpska as soon as possible
- PEG GIS members from Bosnia and Herzegovina will convert the available Flood Risk Maps for Bosnia and Herzegovina (FBiH) into the Sava GIS format, which are already delivered through the Sava FRMP project and uploaded in Sava GIS as soon as possible
- PEG GIS members from Croatia and Slovenia should deliver the national Flood Hazard Maps as the URL links to feature-class table of Flood Hazard Maps layer
- PEG GIS members from Slovenia will merge the divided Flood Hazard Maps for Slovenia and import in Sava GIS as soon as possible
- The data on Flood Protection Structures should be delivered by November 15, 2017.

M. Sarač also briefly informed the PEG about the ICPR Florian tool for the assessment of effects of measures on flood risk, developed by the Rhine Commission, but also extendable and available to other river basins and institutions. The tool has a strong link to the Floods Directive and runs as a Toolbox under ESRI ArcGIS with Spatial Analyst. M. Sarač informed the PEG that the Rhine Commission give permission to the Secretariat for use of the ICPR Florian. The tool will be used to prepare a proposal of the methodology for flood risk analysis on the Sava River, and if the project beneficiaries support the proposal, the similar tool will be developed for the Sava River Basin.

### *2<sup>nd</sup> Sava RBMP cycle - data needs & discussion*

M. Sarač briefly informed the PEG that after the adoption of the 2<sup>nd</sup> SRB Analysis Report and successful collection and storing of a huge amount of the RBM related necessary data in the central Sava GIS RBMP database the next cycle of the GIS data collection for the 2<sup>nd</sup> Sava RBMP is expecting.

He also stressed the conclusion of the 34<sup>th</sup> PEG RBM meeting that the 2<sup>nd</sup> Sava RBMP will follow the 3<sup>rd</sup> national planning cycle of the EU member states (Croatia and Slovenia), meaning that the next cycle of the GIS data collection and import into Sava GIS will start in autumn 2018.

Therefore the PEG agreed and concluded the following:

- Until the next cycle of GIS data collection all remaining data related to the 2<sup>nd</sup> SRB Analysis for which the spatial data are already uploaded the PEG GIS will review, check and import, by the 17<sup>th</sup> PEG GIS meeting, using the already delivered excel tables (available at the PEG's ftp site):
  - *Ad.3\_GIS data collection\_2ndSRBA\_missing\_data\_RBM\_feature\_classes.xls*
  - *Ad.3\_GIS data collection\_2ndSRBA\_missing\_data\_RBM\_attribute\_tables.xlsx*
  - *Ad.3\_GIS data collection\_2ndSRBA\_missing\_data\_TOPO\_feature\_classes.xlsx*

### *Metadata collection*

M. Sarač informed the PEG that the metadata related to the available GIS data (RBM, FRM) are still missing. He stressed the need for this data especially related to defining the possibilities of using the specific data from external users.

After a short discussion on the metadata collection and with the support of Zoran Major, the ICPDR representative, the PEG GIS concluded the following:

- The Secretariat will use all available metadata from Danube GIS, related to the existing data in Sava GIS, and test import in the Sava GIS Metadata Catalogue
- The Secretariat will prepare a comprehensive information on the metadata collection for the 17<sup>th</sup> PEG GIS meeting.

More information on all three items can be found in presentation (Ad.3\_Presentation on GIS data collection), available at the PEG's ftp site.

## **AD 4. SAVA GIS**

### *Current status - DEMO*

M. Sarač provided an update on the Sava GIS main outcomes and functionalities and thereafter presented the Sava GIS Geoportal live demonstration, showing its main and additional functionalities, as well as all available data and the room for improvements.

### *Data access - presentation on system usage & discussion*

M. Sarač presented the current statistical data on the Sava GIS Geoportal usage as well as the list of the existing Sava GIS registered users with the roles of data viewing, exporting or importing. He stressed that the registered roles are still enabled only to the ISRBC community and the PEG members given that the procedures for data access are still not defined. Along with many requests for the data of the

external users, he also emphasized the need for data use by the project which are implementing through the work of ISRBC.

More information on this item can be found in presentation (AD.4\_Presentation on Sava GIS - data access), available at the PEG's ftp site.

After a short discussion on the metadata collection and with the support of Z. Major, the ICPDR representative, the PEG GIS concluded the following:

- The Secretariat will prepare a proposal of the Sava GIS data access procedures using the existing procedures of ICPDR as a starting point.

## **AD 5. SAVA GIS FURTHER DEVELOPMENTS**

### *Introduction*

M. Sarač informed the PEG that several improvements of the current Sava GIS Geoportall functionalities were already implemented with the external technical assistance while the following activities are planned to be implemented in due course.

In order to ensure efficient and effective functionalities of the Sava GIS, he stressed that the system security is also very important issue, especially given that the parts system (e.g. Sava HIS) becomes an integral part of the Sava FFWS. The lack of security and potential risks has been recognized in the configuration of the current IT-GIS system and therefore a draft proposal for an IT system upgrade has been prepared to bypass the current security barriers, most notably the unauthorized entry into the ISRBC's local network. The proposed security upgrade will enable advanced control and configuration rules for access rights to both local and external users of the complete ISRBC's IT system, including SavaGIS.

With respect to the upgrade of existing FRM module M. Sarač pointed out again that during the implementation of project for the 1st Sava FRMP development the design of FRMP database module and implementation of it into SavaGIS is planned. During the inception phase, within the draft Inception report, the Consultant has prepared an analysis of the existing FRM module and gave a draft proposal of the requested upgrade. Therefore a draft Inception report and two annexes which are related to the FRM module upgrade are delivered to the PEG as the following background documents (available at the PEG's ftp site):

- *Ad.5\_BD1\_Sava GIS further developments\_Sava FRMP\_IR\_draftFinal.docx*
- *Ad.5\_BD2\_Sava GIS further developments\_Sava FRMP\_IR-Annex5\_ExistingFRMmodule\_Statistics.docx*
- *Ad.5\_BD3\_Sava GIS further developments\_Sava FRMP\_IR-Annex6\_ExistingFRMmodule\_Overview.docx*

Mentioned proposal was presented in the coming agenda item.

The plan of meetings within the Sava FRMP project was also presented and emphasized the need of involvement of the PEG GIS members at the specific meetings of the Core Working Group and other project events.

M. Sarač also stressed that the preparatory activities on integration of the existing navigation management applications within the unique SavaGIS platform are ongoing, with the ultimate goal of merging the data related to navigation at SavaGIS Geoportall to establish the navigation module, planned by the Sava GIS Strategy.

More information on this introduction can be found in presentation (AD.5\_Presentation on Sava GIS further developments), available at the PEG's ftp site.

### *Design and implementation of the FRMP database module - presentation of the draft proposal*

Davorin Singer, on behalf of the EPTISA's consultant team gave an overview on the project implementation, results of the inception phase and presented a first draft proposal of the design and implementation of the FRMP database module within Sava GIS.

It was stressed that the existing Sava GIS FRM database will be upgrade using the new version of Guidance for Reporting under the Floods Directive 2017, which is still in development. Therefore the new schemes from the Guidance were also presented and compared with the existing Sava GIS FRM database structure. D. Singer pointed out that after approval of the database, a full implementation within the Sava GIS Geoportal and related we applications will be done.

Given that the relations between the attribute data of FRMP dataset and spatial data are not defined by the Guidance, the PEG suggested to connect FRMP attributes with the APSFRs as the main analytical units for analysis.

Details can be found in the presentation (*AD.5\_Presentation on Sava FRMP project\_draft proposal of databas*).

### *Discussion*

PEG GIS took note on the proposal and after discussion the following conclusion has been agreed:

- PEG GIS supported the presented approach and noted that improvements of the existing Sava GIS FRM database should be also done within the project
- PEG GIS will review the delivered proposal and send the comments by November 15, 2017
- PEG GIS emphasized that before the approval of FRMP database the methodology for flood risk analysis and other inputs of flood experts should be defined, so the database could be inline with available data by countries
- PEG GIS has suggested to the consultant to use the ICPR Florian tool as an input for the preparation of methodology for flood risk analysis
- PEG GIS has suggested to the consultant to prepare the manuals using the existing Sava GIS template (CHM file)
- PEG GIS concluded that after the Sava GIS FRM database is upgraded and FRM module is completed, the national databases should also be also aligned with it
- PEG GIS has requested to participate at the project meetings (CWG and other) when the Sava GIS FRM database is going to be discussed.

### **AD 6. OTHER ISSUES**

As already proposed by the PEG at the previous meetings, the next 17<sup>th</sup> meeting of PEG GIS shall be held in March 2018 in Sarajevo. Details and the exact date will be determined later.



## ANNEX I: LIST OF PARTICIPANTS

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## ANNEX II: LIST OF DOCUMENTS

Agenda item	Title	Language	Type
1	Ad.1_PEG GIS_16 <sup>th</sup> meeting_AdoptedAgenda	Eng	.docx
2	Ad.2_Presentation on ISRBC activities_PEG GIS 15	Eng	.ppt
	Ad.2_Tasks and duties from the previous PEG meetings_Overview	Eng	.doc
3	Ad.3_GIS data collection_Summary Sheet	Eng	.doc
	<ul style="list-style-type: none"> <li>▪ Ad.3_GIS data collection_2ndSRBA_missing data_RBM_feature_classes.xlsx</li> <li>▪ Ad.3_GIS data collection_2ndSRBA_missing data_RBM_attribute_tables.xlsx</li> <li>▪ Ad.3_GIS data collection_2ndSRBA_missing data_TOPO_feature_classes.xlsx</li> </ul>	Eng	.xls
	<ul style="list-style-type: none"> <li>▪ Ad.3_GIS data collection_SavaGIS FRM geodatabase model.chm</li> <li>▪ Ad.3_GIS data collection_SavaGIS RBMP geodatabase model.chm</li> <li>▪ Ad.3_GIS data collection_SavaGIS TOPO geodatabase model.chm</li> </ul>	Eng	.chm
	Ad.3_Presentation on GIS data collection	Eng	.ppt
4	Ad.4_Presentation on Sava GIS - data access	Eng	.ppt
5	Ad.5_ Sava GIS further developments_Summary Sheet	Eng	.doc
	<ul style="list-style-type: none"> <li>▪ Ad.5_BD1_Sava GIS further developments_Sava FRMP_IR_draftFinal</li> <li>▪ Ad.5_BD2_Sava GIS further developments_Sava FRMP_IR-Annex5_ExistingFRMmodule_Statistics</li> <li>▪ Ad.5_BD3_Sava GIS further developments_Sava FRMP_IR-Annex6_ExistingFRMmodule_Overview</li> </ul>	Eng	.doc
	Ad.5_Presentation on Sava GIS further developments	Eng	.ppt
	Ad.5_Presentation on Sava FRMP project_draft proposal of database	Eng	.ppt
	Ad.5_Sava GIS further developments_Design and implementation of the FRMP database module	Eng	.rar
	<ul style="list-style-type: none"> <li>▪ SavaFRMP - Activity C - FRMP Geodatabase Model .pdf</li> <li>▪ SavaGIS_FRM_v3_0_layers_tables.jpg</li> <li>▪ SavaGIS_FRM_v3_0_domains.jpg</li> </ul>		