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13th Ad hoc GIS EG Meeting Report

Zagreb, 22 September 2015

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I. ATTENDANCE

All the Parties to the FASRB were represented at the meeting.

The meeting was also attended by the representatives of: the ICPDR, the Sava GIS Consortium (IN2&IGEA) and the Secretariat of the Sava Commission.

The list of participants is given in Annex I of this report.

II. CHAIRMANSHIP

Mr. Dragan Zeljko chaired the meeting.

III. ADOPTED AGENDA

1. Opening of the meeting

- Welcome and opening remarks
- Adoption of the agenda

2. Overview of the ISRBC activities since the last EG meeting

- Presentation of activities and developments

3. Implementation of hydrological and meteorological data management policy¹

- Overview of the SavaHIS status and functionalities (IN2&IGEA)
- Discussion on hydro and meteo gauging stations to be included in SavaHIS
- Discussion on further steps

4. Sava GIS development

- Overview of the SavaGIS current status-presentation and discussion
- 2nd Sava GIS testing – presentation and discussion
- Next steps

5. GIS data collection

- 2nd Sava RB Analysis - Review of GIS data needs
- Review of flood related GIS data needs &formats (PFRA & FH&FR maps)
- Discussion & conclusions

6. Other issues

¹ Agenda item 3 – jointly with the Ad hoc HMI EG

IV. MINUTES OF THE MEETING

AD 1. OPENING OF THE MEETING

Welcome and opening remarks

Mr. Zeljko, Chairman of the Ah GIS EG, opened the meeting and welcomed the participants.

Adoption of the Agenda

- Ah GIS EG adopted the agenda of the 13th Ah GIS EG meeting (Doc. Ref. No.: 3-15-12/2-2).

AD 2. OVERVIEW OF THE ISRBC ACTIVITIES SINCE THE LAST EG MEETING

The Secretary, Mr. Dejan Komatina, informed the Ah GIS EG on the activities of the ISRBC since the last, 12th Ah GIS EG meeting. He informed the Ah GIS EG on the most important meetings and events, status of the projects, activities and protocols, publications, and upcoming meetings and events.

He briefed the Ah GIS EG about the ministerial meeting and 38th Sava Commission meeting, which were held on July 6-7 in Brčko (Bosnia and Herzegovina) and gave an overview of the conclusions of the meetings, emphasizing the following:

- Slovenia ratified the *Protocol on flood protection to the FASRB* and by this the ratification process has been finished
- Protocol on sediment management was signed in Brčko, on 6th July 2015

Details can be found in Mr. Komatina's presentation (*Ad.2.1_Presentation_ISRBC_Ah GIS EG 13*).

Mr. Zeljko informed the Ah GIS EG on the latest developments in preparation of the Lidar project proposal as well as on the next steps. He emphasized that after the first Lidar project proposal, which was initiated in March 2015, the Secretariat and the experts from USACE are preparing a new project proposal with larger spatial extent to be surveyed then previously planned (wider buffer zone behind the levees, a bigger settlements inclusion etc.). After approval of a new Scope of Work by the US Authorities, the proposal of the spatial extent of Lidar survey will be sent to the Sava Commission for approval and the implementation is expected soon.

AD 3. IMPLEMENTATION OF HYDROLOGICAL AND METEOROLOGICAL DATA MANAGEMENT POLICY

This agenda item was held jointly with the Ah HM EG, with participation of the Sava HIS project Consultant IN2 and IGEA.

Mr. Mirza Sarač (Secretariat) presented the project scope and objectives and an overview of the future Sava HIS functionalities. He stressed that the legal background for implementation of the SavaHIS are FASRB, Protocol on flood protection to the FASRB, WMO Resolutions and Policy on the exchange of hydrological and meteorological data and information in the SRB.

SavaHIS is part of the SavaGIS and he noted that collecting and storing of the time-series was part of the 3rd implementation phase of the Sava GIS and now the process is accelerated due to the need of the Data Policy implementation. Concept of the SavaHIS is similar as the concept of CUAHSI (<https://www.cuahsi.org/>), which implies Water ML format implementation in accordance with standards of the World Hydrological Observing System and WMO Information System.

The project is supported by the ICPDR, the Finish Meteorological Institute as well as the ISRBC, and has been implemented by the Consortium consisting of IN2 Zagreb & IGEA Varaždin, with project duration from July until October 2015.

After introductory presentation Mr. Hrvoje Matijević (IGEA) presented in details the SavaHIS as well as current project status.

Mr. Matijević presented results of the assessment phase, which has been made on the basis of technical meetings conducted in July, 2015. He stressed the analysis of the current data exchange systems in the Sava countries with the proposed system of data delivery and informed the Ah GIS EG how they plan to establish a web application for near real time and processed data and metadata management.

Afterwards Mr. Sarač presented how selection of hydro and meteo gauging stations, proposed for SavaHIS, has been made. He emphasized importance of determining of the list, as well as determining of data delivery format (file structure).

After discussion the following conclusions, as a prerequisites for further development of SavaHIS, has been agreed:

- Secretariat will distribute the list of stations to Ad hoc GIS and HMI EGs. The countries will confirm the list and fill in the required mandatory attributes by 01 October 2015
- Hydrological data to be included in the current Sava HIS application are: water level, change of water level, discharge and water temperature
- The data that institutions/data contributors send to SavaHIS near real time application shall be hourly recorded data. If the data is not existing the record will be empty, but all data received will be shown in the application
- The database will store real time datasets for 30 days and this information will be also publicly available on through Sava portal
- The web application for real time data will include a disclaimer that the data are unofficial. ISRBC will send the exact disclaimer to the consultant
- The SavaHIS admin module shall have capability of managing which parameters shall be shown on the public presentation of SavaHIS
- For meteo stations and datasets the same requirements and deadlines apply as for hydro stations and datasets
- The meteo data which will be shown for real time application are: average precipitation and the average temperature for the previous day (to be send to SavaHIS) – the ISRBC will communicate and confirm the datasets with HMI EG by 01 October
- The processed data and yearbooks – the data collection will be done by HMI EG
- The shapefile with x, y data of each SavaHIS gauging station shall be sent by the Secretariat to the consultant

AD 4. SAVA GIS DEVELOPMENT

As an introduction, Mr. Zeljko briefly provided an overview on the yesterday's workshop. He stressed that this session is in fact an opportunity to continue discussion and to agree upon a certain issues that would help Consortium in finalizing of the establishment of the system.

Minutes of meeting of the 2nd SavaGIS workshop are in Annex III of this report, where all related information and recommendations from the workshop are provided.

Mr. Stjepan Grđan, representative of the Consultant, gave an overview of 2nd test cycle results. The feedback was received from all countries. Details can be found in the document (*AD.4_2ndTestResults_SUMMARY.zip*).

After discussion the following was agreed and explained:

- In the user manual and the test scenarios shall be added the important note that during data upload the pop-up must be enabled;
- The print layout shall be adjusted, as follows:
 - Numerical map scale shall be excluded from print and the graphical measure/scale bar shall be included
 - The ISRBC logo shall be included
 - The disclaimer shall be included in print
 - The Consultant shall give suggestion for improvement of the print report layout
- Upload of the datasets for another country is disabled in a way that the system checks EUCD attribute in datasets and compares it with user country, in the case of different EUCD and user country, the system returns validation error;
- When an attribute from the table of a WFS layers has been selected (select feature from attribute table) it should be the visible at the graphical view of geoportal
- The open topic is which base layer to include as the default background and Mr. Primož Kogovšek asked that the Open Street Map background layer should be removed as default base layer. The Secretariat will contact Gisdata (official distributor of ESRI) in order to check what prerequisites should be met in order to use ESRI maps as background at the SavaGIS Geoportal
- Consultant will keep the system open for further testing of Data sharing and validation.

The next planned integration test depends on the ICT infrastructure in the Secretariat, and the dates will be communicated afterwards. Mr. Zeljko informed the participants that it is expected a satisfactory internet connection will be available at the Secretariat by early October.

AD 5. GIS DATA COLLECTION

2nd Sava RB Analysis - Review of GIS data needs

Mr. Samo Grošelj briefly introduced current status of the 2nd SRBA report preparation. He presented table of the data which are uploaded by the Sava countries to the Danube GIS. Detail overview of the data can be seen in document (*AD.5_Datasets Overview Latest update DanubeGIS_SRB_16_09_2015.xls*).

Mr. Hajrudin Mičivoda informed the Ah GIS EG that the RBM plan for Bosnia and Herzegovina is under development and will be finished until March 2016.

After short discussion the following was agreed:

- All data for BA Fed should be used from the 1st Sava RBM plan, while data uploaded to the Danube GIS are not complete;
- Regarding protected areas, Slovenia will provide new data for NATURA 2000, taking into account only water related habitats and other countries will check data from the presented Danube GIS table.

Review of flood related GIS data needs &formats (PFRA & FH&FR maps)

Mr. Mirza Sarač briefly presented discussion and conclusions from the 27th PEG FP EG meeting, related to upload of the data in the FRM database.

He emphasized that the countries agreed to upload the available data for the Flood Hazard and Risk as well as for the Flood Protection Structures modules. The Flood Protection Structures will be loaded with datasets for dykes, retentions, floodgates, and pumping stations as well as for major dams in the entire basin. No information on the structures which have a minor influence on water regime will be collected (bank protection, etc.). The countries will upload available datasets during the final integrated test.

After short discussion the following was agreed:

- the Ah GIS EG members will be in direct contact with the PEG FP members, regarding the agreement on data upload;
- the countries will upload the available data for the above mentioned datasets during the final integrated test.

AD 6. OTHER ISSUES

Mr. Aleksandar Miličević proposed holding the next meeting of the expert group in Belgrade. Details and the exact term will be determined later.

Mr. Primož Kogovšek emphasized the problem of the SavaGIS system maintenance after its establishment and stressed complicity of the process, having in mind current lack of resources of the Secretariat. Group members also initiated change of the GIS expert group status from Ad hoc to Permanent as far as SavaGIS is established. The Ah GIS EG agreed that these issues should be initiated in front of the Sava Commission.

ANNEX I: LIST OF PARTICIPANTS

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ANNEX II: LIST OF DOCUMENTS

Agenda item No:	Title	Language	Type
1	AD.1_Ah GIS EG_13th meeting_Agenda	Eng	.doc
2	AD.2_Presentation_ISRBC_Ah GIS EG 13	Eng	.ppt
3	AD.3_SavaHIS_Overview	Eng	.ppt
3	AD.3_SavaHIS_Project	Eng	.ppt
3	AD.3_H&M stations analysis	Eng	.ppt
4	AD.4_2ndTestResults_SUMMARY - SavaGIS_2_HistoryLog.UTC_SUMMARY.docx - SavaGIS_2_Reports.UTC_ISRBC_SUMMARY.docx - SavaGIS_TestCases_Data_Sharing_and_Validation_SUMMARY.docx	Eng	.zip
5	AD.5_Datasets Overview Latest update DanubeGIS_SRB_16_09_2015	Eng	.xls
5	AD.5_GIS data collection_FRM	Eng	.ppt

ANNEX III: 2ND SAVA GIS WORKHOP MINUTES

2ND WORKSHOP MINUTES OF MEETING

„Support to the International Sava River Basin Commission in the development of the Sava Geographic Information System“

Establishment of the SavaGIS core functionalities

Meeting theme: SavaGIS 2 nd Workshop			
Meeting convened by:	Dejan Komatina	Meeting date:	21.09.2015.
Meeting duration:	10:30 – 16:30	Meeting location:	Hotel International Miramarska 24 10000 Zagreb, Croatia
Meeting purpose:	To present the implementation status of activities to the ISRBC community, and to obtain the feedback and recommendations for steps forward		
Workshop Agenda:			

Session 1 - 10:30 – 10:50 Welcome and Introduction

- Welcome address, D. Komatina (ISRBC)
- Introductory note, D. Zeljko (ISRBC)

Session 2 - 10:50 – 11:15 Overview of the Sava GIS status

/ presenter: J. Pezo (IN2&IGEA)

- Overview of implementing status
 - Sava GIS architecture (hardware and software)
 - Outputs & deliverables

Session 3 - 11:15 – 12:15 Sava GIS Geoportal

/ presenter: S. Grđan (IN2&IGEA)

- SavaGIS Geoportal core functionalities
- SavaGIS “live” demo
- Discussion

Session 4 - 12:45 – 13:15 Sava GIS RBM and FRM datasets

/ presenters: H. Matijević and S. Grđan (IN2&IGEA)

- Sava GIS database model (RBMP and FRM)
- Harmonization and migration of existing ISRBC RBMP database data to RBMP 2016 database
- Discussion

Session 5 - 13:15 – 14:00 Sava GIS metadata management

/ presenter: S. Grđan (IN2&IGEA)

- Sava GIS metadata catalogue
- Sava GIS metadata reporting and validation
- Discussion

Session 6 - 15:00 – 16:00 Hydrological Information System of the ISRBC - Sava HIS

- Sava HIS overview, M. Sarač (ISRBC)

/ presenter: H. Matijević (IN2&IGEA)

- Project goals & expected outputs
- Sava HIS as a supplement of Sava GIS
- Implementation status and next steps
- Discussion

Session 7 - 16:00 – 16:30 Closing session

/ chairs: D. Komatina (ISRBC) and J. Pezo (IN2&IGEA)

- Final comments and wrap-up



Minutes

Type	Description		
1. Welcome and Introduction			
	<ul style="list-style-type: none"> Welcome address was given by Mr. Dejan Komatina. Sava GIS project introduction with overview of development Sava GIS projects and milestones was given by Mr. Dragan Zeljko. 		
2. Overview of the Sava GIS status			
	<ul style="list-style-type: none"> Overview of Sava GIS implementation status was given by Ms. Jarmila Pezo 		
3. Sava GIS Geoportal			
	<ul style="list-style-type: none"> Sava GIS Geoportal presentation with live demo was given by Mr. Stjepan Grđan During the discussion, the following issues were raised: <ul style="list-style-type: none"> Coordinate system transformation – the system will support coordinate system transformation with parameters registered at the portal spatialreference.org/ref/epsg. The institutions shall check whether the local coordinate systems are registered at the portal During data upload of zipped fgdb file for data reporting, the zip files will be stored at the GIS server for backup The main Sava GIS system administrator is ISRBC only 		
4. Sava GIS RBM and FRM datasets			
	<ul style="list-style-type: none"> Sava GIS database model presentation was given by Mr. Hrvoje Matijević Harmonization and migration of existing ISRBC RBMP database data to RBMP 2016 database presentation was given by Mr. Stjepan Grđan During the discussion, the following issues were raised: <ul style="list-style-type: none"> The suggestion was given to deliver the fgdb files with RBMP2010 to data contributors FRM data model – Flood management directive segments are implemented. FRMP was not implemented as ToR was written before 2013 when directive was published. The APSFR datasets are loaded by ISRBC and those data will be publicly available via Geoportal. Other FRM datasets will be loaded by local data contributors. 		
5. Sava GIS metadata management			
	<ul style="list-style-type: none"> Sava GIS metadata management presentation was given by Mr. Stjepan Grđan During the discussion, the following issues were raised: <ul style="list-style-type: none"> As the metadata management is implemented with Geonetwork, the possibility of data harvesting between Geonetwork and ESRI metadata catalogue was discussed. The solution for Geonetwork configuration to harvest metadata from ArcSDE is described here: http://geonetwork-opensource.org/manuals/2.10.4/eng/users/managing_metadata/harvesting/sde/index.html The SavaGIS Geoportal has implemented link between spatial data and metadata The delivery of metadata is not directly mandated to delivery of RBM and FRM datasets, but the data contributors have agreed obligation for metadata delivery 		
6. Hydrological Information System of the ISRBC - Sava HIS			
	<ul style="list-style-type: none"> Sava HIS overview presentation was given by Mr. Mirza Sarač Sava HIS implementation status was given by Mr. Hrvoje Matijević and Mr. Stjepan Grđan During the discussion, the following issues were raised: <ul style="list-style-type: none"> The real time application will show the values of the parameters provided in Data policy document Period of storing the real time data at the SavaHIS server. It was discussed whether to store the data 7 or 14 days with conclusion that final decision should be made by Ad hoc HMI EG The application must include the disclaimer that the real time data are unofficial. The project has very short deadlines, and the institutions will be contacted to deliver information within very short term. 		
7. Closing session			
	<ul style="list-style-type: none"> The Final comments and wrap-up was given by Mr. Dejan Komatina and Ms. Jarmila Pezo The next meeting is Ad hoc GIS Expert Group meeting – 22.9.2015. 		
Document record:			
Minutes authors:	Jarmila Pezo	Minutes creation date:	25.9.2015.
Minutes revised by:	Dragan Zeljko		

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