



Final Report

Submission Date:

18.04.2016

for the implementation of the project

Project Number: 09_PA04_C1

**Project Title: Towards the assesment of ecological status of water bodies
in the Sava River Basin**

Project Acronym: STAWA

in relation to the

"START - Danube Region Project Fund"

of the European Union Strategy for the Danube Region

by

Lead Partner: University of Belgrade, Institute for Biological Research Siniša
Stanković

Commencement Date: 01.04.2015

Project Completion Deadline: 31.3.2016

Reported Period¹: From 01.04.2015 to 31.03.2016

¹ Midterm Report: Commencement Date to Midterm Date
Final Report: Commencement Date to completion of the Project



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1. Preface

This report gives an update about the status of the project implementation and about conducted actions and activities within the reported period for the project supported by the START Danube Region Project Fund.

2. Context, main objectives and summary of the START project (max. 2000 characters excl. spaces)

Please indicate the issue(s) or topic(s) addressed by your project, the concrete objective(s) which is/are to be reached by the end of project implementation, as well as a short summary of the project (as defined in Schedule 1: Project Description).

The Sava River Basin (SRB) represents an important part of the Danube River Basin (DRB) and overall European river network, due to its size, number of countries that share the area (Slovenia - SI, Croatia - CRO, Bosnia and Herzegovina - BA, Serbia - RS and Montenegro - ME), diverse social and economic conditions, but also natural heterogeneity and biodiversity. A lot of data needed for proper water and environmental management within the SRB is still missing, or is unreliable. No common database and data exchange mechanism has been established. In order to overcome the existing shortages in data availability, to enhance collaboration between countries and institutions and to provide the platform for further effective water management within the SRB, the following main activities have been planned for the STAWA project: identification of data sources, data collection and evaluation, identification of data gaps, identification of activities for overcoming recorded shortcomings in relevant information, prioritization of listed activities, providing the platform for integrated database on water and environmental information, identification of further steps for more effective management, but also planning of joint future projects. All mentioned activities were initiated in the period covered by this report. Data sources are recognized and data sets are gathered and evaluated. The major requirements for effective database adapted for environmental data, especially data on biodiversity are proposed. The backup database for quality control of biological data was considered (taxa coding systems). As a starting point of the project, the International Sava River Basin Commission (ISRBC – PP5) has been identified as major driving force for the improvement of water management within the SRB. Capacities of this international body provides basis for implement of the STAWA project results. Namely, four countries (SI, CRO, BA and RS) signed and ratified the Framework Agreement (FA) on the SRB which This agreement, implemented by the ISRBC, enhance collaboration within the countries and provide possibility for harmonization of issues related to water management practice. Moreover, FA obliged countries to develop a joint SRB Management Plan.

Please specify any deviation between the validated project description and current situation.

No deviation recorded during the project duration.

3. Summary of the project implementation and conducted activities

Please complete this section for each of the activities as defined in Schedule 1 "Project Description" of the Grant Agreement. If the project contains less than 6 activities, please indicate NOT APPLICABLE where needed. No reporting is requested for the activity "Project management" as defined in Schedule 1 "Project Description" of the Grant Agreement.

Activity 1	Defined in Project Description	Status Quo: Midterm Report	Status Quo: Final Report
Title	Identifying the data sources		
Description	<p>Existing water quality, biological monitoring data and data on biodiversity of aquatic organisms will be evaluated. Beside routine monitoring data, the information available from specific activities (specific monitoring programs, research projects and other relevant sources) will be included. The data sources with available information on the data type and spatial and temporal range cover will be provided. Target questionnaires will be prepared and the relevant sources and data type will be described. This will provide standardisation in data collection and description.</p>	<p><i>What has been done so far?</i></p> <p>Data sources within the SRB have been identified. The following datasets have been collected and evaluated (frequency and parameters of monitoring): Water quality data; Hydrological data (both for period 2005-2013); biological data from research projects (period 2010-2015); GIS datasets. Cooperation with the GLOBAQUA project was established (FP7 - 603629-ENV-2013-6.2.1- Globaqua"). Besides, draft questionnaires have been prepared and distributed to PP for the evaluation. Manuscript under the title "Management within the Sava River Basin - data availability and assessment" has been prepared.</p> <p><i>If applicable: Which major issues are there in relation to this activity, and how do you plan to address them?</i></p> <p>One of the aims of the STAWA project is harmonization of data quality, that includes the sampling, analytical procedures (in the case of chemical parameters) and taxonomical resolution (in the case of biological quality</p>	<p><i>What has been conducted and achieved? What is the state of play at the end of the project?</i></p> <p>Data sources and the list of data provider in the SRB have been updated (Annex 1 - ann_1.pdf). Draft questionnaires have been updated based on the comments received from all partners and finally one questionnaire has been prepared (Annex 2 - ann_2.pdf) to be distributed on workshop (finalised on 10-12. February 2016, Ljubljana). Results of questionnaire have been evaluated (Annex 2 - ann_2.pdf). Paper under the title "Steps Towards Integrated Water Management in the Sava River Basin" has been published in journal Water Research and Management, Vol. 6, No. 1, 2016 - Annex 3 - ann_3.pdf.</p>

		<p>elements). Also, standardization in data organization is planned to be proposed. This issue is planned to be addressed based on the assessment of available information, but also using the information gathered from specific questionnaire and outputs from workshop.</p>	
<p>Responsibility of involved partners</p>	<p>Lead Partner: Coordination of activities, identification of data sources, preparation and distribution of questionnaires, data analyses, providing the proposal for standardisation of data collection, organization of relevant meeting of project partners, preparation of internal report and publication;</p> <p>Partners 1-5: Identification of data sources, data analyses, providing the proposal for standardisation of data collection;</p> <p>PP 5: organization of relevant meeting</p>	<p>All PPs have been involved in the identification of relevant data sources. The following partners have been incharged in water quality data collection - PP1 for Slovenia, PP2 for Croatia, PP4 for Bosnia and Herzegovina, LP for Serbia. PP5 contributed to collection of both, hydrological and water quality data. LP and PP5 were involved in collection of primarily biological data related to research activities. All PPs has been involved in data evaluation activities, the development and target questionnaires and prparation of public.</p> <p>LP and PP5 involved in project meetings organisation.</p>	<p>All PPs have been involved in the updating of the list of relevant data sources. The following partners have been incharged in water quality data collection - PP1 for Slovenia, PP2 for Croatia, PP4 for Bosnia and Herzegovina, LP for Serbia. PP5 contributed to collection of both, hydrological and water quality data. LP and PP5 were involved in collection of biological data. All PPs has been involved in data evaluation activities, the development and target questionnaires and prparation of public.</p> <p>LP and PP5 involved in project meetings organisation.</p>

	of project partners, preparation of internal report and publication;		
Indicator 1	No. of meetings 1 with total meeting hours of 7 -meeting will take place in Belgrade, during initial phase of the project realization. It will be organized by Leading partner.	Instead of Belgrade, meeting took place in Zagreb, 18.05.2015 (due to organizational reasons - less time consuming for majority of participants), in the International Sava River Basin Commission (PP5). Participants: Dr Radmila Milačić (PP1), Samo Grošelj (PP5), Dr Ivan Vučković (PP2), Iva Vidaković, (PP2) and Dr Momir Paunović (LP). PP3 and PP4 participated on the meeting via Skype.	<i>If applicable: what is the reason for the deviation between planned and achieved indicators?</i>
Indicator 2	No. of studies/publications: 1 with total no. of pages 30 - Responsibility of Leading partner and Partner 5, but with the support of all partners	Manuscript under the title "Management within the Sava River Basin - data availability and assessment" has been prepared for the scientific journal Water Research and Management (http://www.wrmjournal.com/). The manuscript is under the review process.	Paper under the title "Steps Towards Integrated Water Management in the Sava River Basin" has been published in journal Water Research and Management, Vol. 6, No. 1, 2016 - Annex 3 - ann_3.pdf. Title of the manuscript has been changed according to reviewer comments. <i>If applicable: what is the reason for the deviation between planned and achieved indicators?</i>
Indicator 3			<i>If applicable: what is the reason for the deviation between planned and achieved indicators?</i>

Indicator 4			<i>If applicable: what is the reason for the deviation between planned and achieved indicators?</i>
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Activity 2	Defined in Project Description	<u>Status Quo:</u> Midterm Report	<u>Status Quo:</u> Final Report
Title	Proposal of the platform of database for water related environmental data		
Description	<p>Based on assessment of quality and quantity of the water related environmental data, the platform for preparation of integrated database for water related Environmental data (water quality, water status, biodiversity, relevant pressures) will be elaborated within the project. Beside involvement of project team members in data assessment and platform preparation, the additional information and proposals will be gathered during the realization of specific workshop.</p>	<p><i>What has been done so far?</i></p> <p>Sava GIS Database model (Esri Geodatabase) has been designed within project “C4-Establishment of the Sava GIS core functionalities” (project started by PP5). The activities of the STAWA project have been focused on the preparing the proposal on organisation of water quality and biological data, as well as specific reporting tools related to biological quality elements and biodiversity. Particular attention was paid to the possibility to connect biological parameters and relevant pressures. The selection of biological parameters and relevant coding systems have been elaborated.</p> <p><i>If applicable: Which major issues are there in relation to this activity, and how do you plan to address them?</i></p> <p>The major goal is to provide input for the design of database for different types of environmental data. This complex topic covers: 1. preparation of solutions for background taxonomic database with relevant taxacoding system (for each biological quality element) 2. to initiate resolving of the issue of uploading the data and "user friendly" reporting tools. Those activities will be realized by selection of "best available practice" from different platforms designed for similar purposes (e.g. the ICPDR database) and based on the PPs experience in using</p>	<p><i>What has been conducted and achieved? What is the state of play at the end of the project?</i></p> <p>Conceptual model for biological data has been finalised (Annex 4 - ann_4.pdf). It has been designed to be integrated in Sava GIS and Sava HIS (hydrological data) existing database. Based on the results of workshop (10-12. February, Ljubljana), namely correspondence with attendants of the meeting, integration of biological data in existing database is optimal solution. The Conceptual model of the Biological data is designed and presented as Entity-relationship (ER-model) model diagram.</p>

		<p>different databases.</p>	
<p>Responsibility of involved partners</p>	<p>Lead Partner: Coordination of activities, design of database platform, including the proposal for taxa coding systems (Biological Quality Elements) technical organization of workshop, analyses of output information from the workshop preparation of internal report and publication;</p> <p>Partners 1-5: Design of database platform, analyses of output information from the workshop preparation of internal report and publication;</p> <p>Partner 5: organization of workshop,</p>	<p>LP - coordination of all activities, All PPs - design of database platform (selection of biological metrics, proposal of coding system, work on taxonomical databases, drafting the publication/manuscript on relevant topic), preparation of workshop (planned to be held in Ljubljana, second week of February 2016 - joint workshop with the GLOBAQUA FP7 Project).</p>	<p>LP - coordination,</p> <p>All PPs - design of database platform (proposal of coding system, work on taxonomical databases, drafting the publication/manuscript on relevant topic), preparation and preparation of workshop (10-12. February, Ljubljana 2016 - joint workshop with the GLOBAQUA FP7 Project). The conceptual model has been developed with contribution of external support (IGEA d.o.o. - IN2 Group, Frana Supila 7/8, 42000 Varaždin, Croatia).</p>

	preparation of internal report and publication;		
Indicator 1	Establishment of 1 IT Tool concept	Draft concept prepared. It has to be verified in consequent steps.	Draft concept finalised with the support of external expertise (budget line "External Services" - Annex 4 - ann_4.pdf). <i>If applicable: what is the reason for the deviation between planned and achieved indicators?</i>
Indicator 2			<i>If applicable: what is the reason for the deviation between planned and achieved indicators?</i>
Indicator 3			<i>If applicable: what is the reason for the deviation between planned and achieved indicators?</i>
Indicator 4			<i>If applicable: what is the reason for the deviation between planned and achieved indicators?</i>

Activity 3	Defined in Project Description	<u>Status Quo:</u> Midterm Report	<u>Status Quo:</u> Final Report
Title	Identification of data gaps regarding water related environmental data		
Description	<p>Based on data review (project team) and results of workshop (Activity 6), the data gaps will be identified. Also, prioritization of necessary step/activities for fulfilling missing information will be done, based on criteria that will be prepared in advance, in consultation with all interesting parties. Criteria for prioritisation will be provided based on the review of the main management needs, including both, environmental protection and resource use issues. Specific attention will be focused in the difference in the data availability between the countries in the SRB.</p>	<p><i>What has been done so far?</i></p> <p>Major shortcomings related to environmental data availability and quality within the SRB have been identified. Draft list of needed activities for overcoming recorded data gaps was prepared. Based on type of activities, draft prioritisation criterias have been proposed. The International Sava River Basin Commission (PP5) activities were used as a platform for the communication with major stakeholders (interesting parties).</p> <p><i>If applicable: Which major issues are there in relation to this activity, and how do you plan to address them?</i></p> <p>The finalisation of the list of priority activities aimed to overcome data gaps and its prioritisation will be done based on the conclusion from final workshop, on consultation with interested parties, as well as based on the results of questionnaire (Activity 1).</p>	<p><i>What has been conducted and achieved? What is the state of play at the end of the project?</i></p> <p>Major gaps have been identified in respect to the data related to water and environment within the SRB. Missing information on parameters supporting BQE, missing data on biodiversity, spatial coverage of monitoring data, missing information on hydromorphology and lack of historical data have been identified as the major shortcomings. Basic shortcomings and the list of priority activities has been finalised are presented in Annex 5 - ann_5.pdf). The list has been finalised based on the results of questionnaire (activity fulfilled during the workshop in Ljubljana, 10-12. February, 2016).</p>
Responsibility of involved partners	<p>Lead Partner: Coordination of activities, technical organisation of workshop;</p> <p>All PPs: Analyses of the data gaps, identification of steps for collecting missing information, identification prioritisation criteria for future</p>	<p>LP - coordination</p> <p>All PPs: Analyses of the data gaps, identification of steps for collecting missing information, identification prioritisation criteria for future activities for collection and management of environmental data, prioritisation based on selected criteria;</p>	

	activities for collection and management of environmental data, prioritisation based on selected criteria, preparation of materials and lectures for workshop, analyses of output information from the workshop preparation of internal report and publication;		
Indicator 1	No. of publications 1 with total no. of pages 10 - responsibility of Leading partner but with the support of all partners.	Planned to be drafted up to the end of November 2015	<p><i>If applicable: what is the reason for the deviation between planned and achieved indicators?</i></p> <p>Two publications finalised - Towards the assessment of ecological status of water bodies in the Sava River Basin - the STAWA project - the SAVA Newsflash, official Bulletin of the ISRBC No.16, November 2015 (Annex 6 - ann_6.pdf) and Contribution to the development of water management practice in the Sava River Basin - the results of the STAWA project, Conference Proceedings WATER 2016, 15-17 June 2016 (Annex 7 - ann_7.pdf).</p>
Indicator 2			<p><i>If applicable: what is the reason for the deviation between planned and achieved indicators?</i></p>
Indicator 3			<p><i>If applicable: what is the reason for the deviation between planned and achieved indicators?</i></p>

Indicator 4			<i>If applicable: what is the reason for the deviation between planned and achieved indicators?</i>
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Activity 4	Defined in Project Description	<u>Status Quo:</u> Midterm Report	<u>Status Quo:</u> Final Report
Title	Identification of measures for fulfilling gaps in respect to water related environmental data		
Description	<p>Upon identification of priority activities to be accomplished with the aim to collect missing data, relevant measures will be proposed, which include identification of funding sources, potential partners and responsibilities, costs, timeline, outcomes, implementation schedule (if applicable) and users. As in the case of Activity 3, the priority activities will be ranked based on the review of the situation in both, environmental protection and resource use areas (primarily water related).</p>	<p><i>What has been done so far?</i></p> <p>In period covered by the report, the major funding possibilities for realization of priority actions for overcoming of data insufficiency were recognized. Beside national funding options, mostly related to using of already existing programs (primarily related to adaptation of routine monitoring and reporting, but also national research projects), different EU funded programs were found to be possibility for financing the activities for establishment of effective basis for methodology harmonization, data collection, establishment and maintaining of database.</p> <p><i>If applicable: Which major issues are there in relation to this activity, and how do you plan to address them?</i></p> <p>Identification of funding sources, potential partners, responsibilities and schedule are planned tasks. During the realization of the STAWA project, the lack of capacity for management projects was recognized within the relevant institutions within the SRB. This is additional task to be addressed. In that respect, the possibilities to overcome this problem will be the topic for the STAWA Consortium. All mentioned activities will be finalized after the realization of the Final Workshop. The workshop will be held in cooperation with the GLOBAQUA project, that will enable more effective outputs.</p>	<p><i>What has been conducted and achieved? What is the state of play at the end of the project?</i></p> <p>The following list of priority activities has been proposed by the project team: Work on harmonization of sampling, material and data processing methodology; Development of logical and physical database that involve BQE; Development of effective sampling methodology for large lowland rivers; Development of status assessment; Work on the identification of heavily modified water bodies; Increase of capacity of laboratories in the SRB - for more details, please see Annex 5 - ann_5.pdf</p>

Responsibility of involved partners	Partner 5: Identification of funding sources and potential partners; Leading partner and Partner 5: Identification of costs, timeline, outcomes, implementation schedule and users.	PP5 and LP: Identification of funding possibilities, potential project partners, users and general approach to the task.	
Indicator 1	No. of meetings 1 with total meeting hours of 7 - meeting in Zagreb, organised by the Partner 5 and Leading partner. The exact timing will be agreed between partners, but it is planned to be in September 2015.	STAWA Project meeting - Zagreb, 09.07.2015. Participants: Radmila Milačić (PP1), Marina Piria, University of Zagreb, Faculty of Agriculture, Samo Grošelj (PP5) and Momir Paunović (LP). Jelena Vicanović (PP4), Jarmila Makovinska and Emilia Elexova (PP3) participated via Skype connection. It was decided that it is more effective to use the opportunity to discuss funding opportunities on this meeting, than to organize separate meeting in September 2015. Thus, the part of the discussion was focused on funding possibilities.	<i>If applicable: what is the reason for the deviation between planned and achieved indicators?</i>
Indicator 2	No. of publications 1 with total no. of pages 30 - responsibility of Leading partner, but with the support of all partners.	Manuscript under the title "Management within the Sava River Basin - data availability and assessment" has been prepared for the scientific journal Water Research and Management (http://www.wrmjournal.com/). The manuscript is under the review process.	Paper under the title "Steps Towards Integrated Water Management in the Sava River Basin" has been published in journal Water Research and Management, Vol. 6, No. 1, 2016 - Annex 3 - ann_3.pdf. Title of the manuscript has been changed according to reviewer comments. <i>If applicable: what is the reason for the deviation between planned and achieved indicators?</i>
Indicator 3			<i>If applicable: what is the reason for the deviation</i>

			<i>between planned and achieved indicators?</i>
Indicator 4			<i>If applicable: what is the reason for the deviation between planned and achieved indicators?</i>

Activity 5	Defined in Project Description	<u>Status Quo:</u> Midterm Report	<u>Status Quo:</u> Final Report
Title	Provision of platform for initial harmonization of methods for ecological assesment of water bodies		
Description	<p>In order to provide platform for initial harmonization of methods of assessment of the ecological status of water bodies between countries in the SRB the following sub-activities are planned to be realized:</p> <p>Review of existing sampling protocols, analytical methods related to chemical and biological monitoring of water status;</p> <p>Organization of training on sampling protocols and sample processing for biological monitoring (Activity 6);</p> <p>Recommendations for harmonization of monitoring parameters; and</p> <p>Preparation of proposal for consequent steps in respect to harmonization of methods.</p>	<p><i>What has been done so far?</i></p> <p>The results of previous projects related to this activity have been summarised. The existing sampling protocols and protocols for collecting of data on sampling sites are reviewed. Based on that, as well as based on experience of PPs, the draft protocols were prepared. The protocols will be further developed in consequent steps of the project realizatin and will be finalized after the realization of Final workshop.</p> <p><i>If applicable: Which major issues are there in relation to this activity, and how do you plan to address them?</i></p>	<p><i>What has been conducted and achieved? What is the state of play at the end of the project?</i></p> <p>During the project realization, the way of harmonization of monitoring methodology has been proposed. Based on the review of data and monitoring practice, as well as having in mind the outcomes of the STAWA Workshop (Ljubljana 10-12 February 2016), there is need for joint work of countries in the SRB on development and harmonization of all activities in the water monitoring, from sampling and material processing, to assessment systems and reporting. More details are provided in Annex 8 - ann_8.pdf).</p>

Responsibility of involved partners	<p>All PPs: Review of existing sampling protocols, analytical methods and procedures in regard to chemical and biological monitoring of water status; organization of training on sampling protocols and sample processing for biological monitoring (Activity 6); recommendations for harmonization of monitoring parameters; preparation of proposal for consequent steps to be realized to fulfill satisfactory harmonization of water status/quality monitoring procedures.</p> <p>LP: Coordination of activities</p>	<p>All PPs: Up to now, the reevaluation of existing sampling protocols, analytical methods and procedures in regard to chemical and biological monitoring of water status has been accomplished. The preparation of materials for the Final Workshop and training was started.</p>	
Indicator 1	<p>No. of publications 1 with total no. of pages 30 - All partners</p>	<p>Manuscript under the title "Management within the Sava River Basin - data availability and assessment" has been prepared for the scientific journal Water Research and Management (http://www.wrmjournal.com/). The manuscript is under the review process.</p>	<p>Paper under the title "Steps Towards Integrated Water Management in the Sava River Basin" has been published in journal Water Research and Management, Vol. 6, No. 1, 2016 - Annex 3 - ann_3.pdf. Title of the manuscript has been changed according to reviewer comments. An additional contribution prepared - Contribution to the development of water management practice in the Sava River Basin - the results of the STAWA project, Conference Proceedings WATER 2016, 15-17 June 2016 (Annex 7 - ann_7.pdf).</p> <p><i>If applicable: what is the reason for the deviation between planned and achieved indicators?</i></p>
Indicator 2	<p>No. of meetings 1 with total meeting</p>	<p>Planned to be realized either in Bjeljina during December</p>	

	hours of 7 - meeting in Bjeljina, organised by Leading partner and Partner 4	2015, or during the first half of February 2016 - to be decided after Skype project meeting planned for	<i>If applicable: what is the reason for the deviation between planned and achieved indicators?</i> Meeting 08.12.2015 in Bijeljina (Grošelj, Paunović and Vićanović)
Indicator 3			<i>If applicable: what is the reason for the deviation between planned and achieved indicators?</i>
Indicator 4			<i>If applicable: what is the reason for the deviation between planned and achieved indicators?</i>

Activity 6	Defined in Project Description	Status Quo: Midterm Report	Status Quo: Final Report
Title	Organisation of workshop on issues relevant for the project and training on biological quality elements in ecological status assessment		
Description	<p>The activity is planned with aim to collect the information related to all other activities proposed. Workshop is planned for up to 50 persons including representatives of Non Governmental Bodies, Ministries and Agencies responsible for Water Management, Environment and Science, Public enterprises, Research Institutes and, Universities, etc. In parallel with organization of workshop, the training on sampling protocols and material processing for biological monitoring and ecological status assessment of water bodies will be organized.</p>	<p><i>What has been done so far?</i></p> <p>Preparatory activities for workshop started. It is scheduled for second week of February 2015. We already contacted the main presenters. The draft agenda of the workshop has been prepared. Part of the material for "Biological training" has been prepared.</p> <p><i>If applicable: Which major issues are there in relation to this activity, and how do you plan to address them?</i></p>	<p><i>What has been conducted and achieved? What is the state of play at the end of the project?</i></p> <p>Workshop realized 10-12 February 2016 in Ljubljana - for details, please see Annex 8 - ann_8.pdf.</p>
Responsibility of involved partners	<p>Lead Partner: Technical organisation of workshop, preparation of lectures, analyses of data gaps, priority actions and outcomes from the workshop;</p> <p>Partners 1-5: Preparation of lectures, analyses of data gaps, priority actions and outcomes from the workshop;</p>	<p>LP, PP1 and PP5: Technical organization of the Final Workshop (reservation of meeting location, reservation of the accommodation for part of participants), preliminary agreement on the main lecturers, preparation of the draft agenda. Also, the joint meeting with GLOBAQUA project has been agreed.</p> <p>LP: Preparation of training lectures.</p>	<p>LP, PP1 and PP5: Technical organization of the Final Workshop (reservation of meeting location, reservation of the accommodation for part of participants), preliminary agreement on the main lecturers, preparation of the draft agenda. Also, the joint meeting with GLOBAQUA project has been agreed.</p> <p>LP: Preparation of training lectures.</p>
Indicator 1	No. of workshops 1 with total no. of	Planned for February 2015.	Realized 10-12 february 2016.

	<p>participants 50</p> <p>The worksop will be organised in Belgrade by the Leading partner. All partners will actively participate by leading the sessions and preparing the lectures. Training related to use of Biological Quality Elements in the water assessment will be the part of the workshop - sampling protocols, material processing, data analyses.</p>		<p><i>If applicable: what is the reason for the deviation between planned and achieved indicators?</i></p>
Indicator 2			<p><i>If applicable: what is the reason for the deviation between planned and achieved indicators?</i></p>
Indicator 3			<p><i>If applicable: what is the reason for the deviation between planned and achieved indicators?</i></p>
Indicator 4			<p><i>If applicable: what is the reason for the deviation between planned and achieved indicators?</i></p>

4. Expected results of the START project activities

Expected results as defined in the Project Description	<u>Status Quo:</u> Midterm Report	<u>Status Quo:</u> Final Report
<p>The outcomes of the project will provide supplementary information for development of water management and flood protection plans, Sediment Management Plan, Plans for development of navigation, Protocols to the FASRB, Flood Risk Management Plan. Database will be available for managers, scientists and public through the project web site. Project results will significantly influence the development and implementation of planned investments (e.g. navigation, hydroelectric power plants) and help to prevent potential harmful effects to natural assets, especially in the protected areas.</p>	<p><i>Has there been any change to the planned expected results?</i></p> <p>Additional issue has been recognized during the realization of the project. International projects have been identified as an important funds source. It has been recognized that there is a lack of capacity for management of complex projects within the SRB. This shortcoming is mostly related to reporting and financial issues. Considerable number of institutions has capacity (in respect to available expertise and equipment) to cover wide range of scientific tasks. Thus, it was decided to address the issue of strengthening of capacity of institutions within the SRB for project management.</p>	<p><i>Which results have been achieved?</i></p> <p>During the realization of the STAWA project, the following issues have been addressed: the evaluation of existing data, including data gaps analyses; the assesment of water status monitoring practice in the countries in the SRB; evaluation of particular areas of the status assesment procedures; the possibility to organize joint biological database related to the water status monitoring results; and harmonization of water monitoring practice. The results are summarized in Annex 9 - ann_9.pdf.</p> <p><i>If applicable: Which expected results could not be achieved (please indicate the reasons and the mitigation measures taken)?</i></p>

5. Unexpected challenges and mitigation measures

Regarding the overall implementation of the project (not at the level of individual activities), please indicate if the Lead Partner and the Project Partners have encountered major challenges and which mitigation measures are envisaged/have been implemented.

Status Quo: Midterm Report	Status Quo: Final Report
<p><i>Did unexpected challenges arise?</i></p> <p>No</p>	<p><i>Did unexpected challenges arise?</i></p> <p>No</p>
<p><i>What did you do and/or have you planned to overcome the challenges?</i></p> <p>NA</p>	<p><i>What did you do to overcome the challenges?</i></p> <p>NA</p>

6. Visibility of the project

<u>Status Quo:</u> Midterm Report	<u>Status Quo:</u> Final Report
<p><i>What kind of information and communication measures did you conduct to make the START project more visible?</i></p> <p>As it was previously emphasized, cooperation with the GLOBAQUA project (FP7 - 603629-ENV-2013-6.2.1-Globaqua”) has been agreed. The STAWA project was presented to GLOBAQUA consortium on First GLOBAQUA General Sampling Campaign Meeting - Barcelona 02-03 March 2015. Also, the project is mentioned during the presentation of the GLOBAQUA project at</p>	<p><i>What kind of information and communication measures did you conduct to make the START project more visible?</i></p> <p>Three papers have been prepared (instead of two planned) - Annexes 3, 6 and 7 (ann_3.pdf, ann_6.pdf and ann_7.pdf). The STAWA project has been presented at the GLOBAQUA project site (the European Communities 7th Framework Programme Funded under Grant agreement no. 603629-ENV-2013-6.2.1-Globaqua http://www.globaqua-project.eu/en/events/showcategory/&cat=workshops). The project is presented on the official site of the ISRBC (http://www.savacommission.org/news_detail/152/1)</p>
<p><i>Outputs (please upload the outputs with the report):</i></p> <ul style="list-style-type: none"> • • • 	<p><i><u>Consolidated</u> outputs (please upload the outputs with the report):</i></p> <ul style="list-style-type: none"> • • •

7. Contribution to the EUSDR and next steps (for final Report only – max. 2000 characters)

7.1 How far did your project contribute to the implementation of the EU Strategy for the Danube Region?

The SRB is one of the largest basin area within the Danube River Basin. It is characterized by the cultural and natural heterogeneity and the population in the region has been faced with difficult socio-economic circumstances in recent history. Consequently, complex cross-border problems exist. Our project addressed cross border cooperation in respect to water management practice, with particular emphasizes to biological monitoring. The water monitoring practice in the SRB has been reviewed, based on up to date information from the countries and on the analyses of historical data. The major difficulties have been identified and we provided the proposal for next priority steps aimed to overcome recorded shortcomings. The Frame Agreement on the Sava River basin and the International Sava River Basin Commission as it's implementation body has been recognized as the key platform for resolving the problems related to the water monitoring practice. During the realization of the project, we reviewed information related to water management within the SRB for period 2005-2015. The evaluation has been focused on data important for preparation of river basin management plans. The following issues have been identified as the major challenges to be addressed in water management practice within the SRB: Providing confident information for effective river basin management planning; Preservation of natural values; Sustainable management of hazards in the basin (i.e. floods, droughts, ice and accidents involving water pollution); and Ensuring an international regime of navigation on the Sava River and its navigable tributaries. Based on the review of the data gaps, the priority actions have been proposed (development of systems of ecological status and potential assessment, establishment of biological database, harmonization of monitoring practice, etc.).

7.2 What do you foresee to ensure the sustainability of your project after the project is concluded? What further steps are planned in the context of the concluded START project?

Legal representative/ authorised signatory in relation to the project

Dr Pavle Pavlović

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Name

Director

.....
Title/Function

.....
Signature and stamp

Belgrade, 28.04.2016

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Place, date