# GEF Danube River Basin Hydromorphology And River Restoration project (DYNA)

## Component 3. Demonstration Pilots –Reconnecting the Karaš River Pilot

## Environmental and Social Management Framework

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# 1. Introduction

The Danube River Basin covers more than 800,000 square kilometres – 10% of continental Europe – and extends into the territories of 19 countries. This makes it the most international river basin in the world. Over 80 million people live in this basin, depending on the Danube for drinking water, energy production, agriculture, and transport. The Danube River Basin covers numerous sub-basins, including Sava, Tisza and Prut.

Over 100 years of navigation, flood-protection, hydropower generation, and sediment extraction have significantly altered the morphological structure of the Danube River Basin, leaving only 17% of water bodies in a 'natural' state. This resulted in a range of environmental problems and hydromorphological alterations.

The Danube River Basin Hydromorphology and River Restoration (DYNA) project builds on nearly 30 years' experience through the Global Environment Fund (GEF), European Union (EU) and other national actors within the Danube River Basin. The GEF has supported key activities through multiple projects and provided over 100M USD in grants to strengthen the management of environmental issues in the region whilst enabling sustainable and improving socio-economic conditions.

## 1.1 The DYNA Project

The DYNA project aims to "Strengthen integrated and harmonised approaches for river restoration and aquatic biodiversity conservation responding to pressures from hydromorphological alterations in the Danube River Basin" with a focus on the five non-EU countries (Bosnia-Herzegovina, Moldova, Montenegro, Serbia, and Ukraine). This objective will be achieved through 4 interlinked components:

- Harmonising regional approaches to reduce hydromorphological pressures;
- Strengthening country-level efforts to implement relevant Danube River Basin Management Plans;
- Demonstration pilot projects for Danube river restoration;

Knowledge management and effective project Monitoring and Evaluation Component 3 of the DYNA Project will comprise of the preparation of one transboundary pilot project across two non-EU Member States and three pilots in non-EU Member States, which will demonstrate hydromorphological pressure reduction and integrated approaches in river basin and flood risk management planning and implementation. The pilots will showcase good practices in river basin management with respect to addressing pressures from hydromorphological alterations and assist with increasing national capacity on project design and implementation.

## 1.2 The Karaš River Pilot

One of the pilots that was selected for implementation is the project on "Reconnecting the Karaš River." The Karaš River is a 110 Km long river in the Banat region of Vojvodina Serbia and Romania and a left tributary of the Danube, originating in the Anina Mountains in Romania.


Figure 1: Location of the pilot site in Serbia

The total surface of the basin is 1447 km2 of which ca. 12% is in Serbia and the rest is in Romania. The river length in Serbia is ca. 30 km. Karaš represents the last as least partially free flowing river in the Banat region in Serbia, with residues of the natural riverbed still in existence. The river is partially trained and channelized, especially the lower part, which is directed into the Danube-Tisza-Danube canal, an important hydro-engineering system for flood control in the region.

Due to river regulation works, the hydromorphology of the Karaš has been greatly altered especially considering that the river mouth has been moved ca. 14 km to the north to be incorporated into the last part of the Danube-Tisza-Danube canal. Furthermore, there are two weirs and one barrage on the river stretch in Serbia. The first weir is right next to the village Jasenovo, the second weir is in the Straža locality and the barrage is near to the Vojvodinci village. The weirs were built in the beginning of the 20th century for diverting water into mills; these mills however are at present out of function.

The aim of the pilot is to restore river connectivity and thus rehabilitate the natural fish population of Karaš River by designing and constructing fish passes that take into account the specific nuances of each locality.

Given the lack of technical specifications of the type of fish pass and given that the site for the fish pass construction is yet to be determined, it was determined that an Environment and Social Management Framework (ESMF), rather than an Environmental and Social Management Plan, would be prepared for this pilot project.

## 1.3 Objective of the ESMF

The DYNA Project will be financed by the Global Environment Facility (GEF), and WWF is the accredited entity negotiating the Project with GEF. Hence, the WWF's Environmental and Social Safeguard Integrated Policies and Procedures (SIPP) apply to the project, and require the preparation of an Environmental and Social Monitoring Framework (ESMF).

The principles and procedures of the ESMF apply both to project activities that are funded through GEF and to activities that are funded from other sources.

The preparation of this ESMF was required in accordance with the WWF's SIPP in order to identify and manage the environmental and social risks and impacts of the demonstration pilot on "Reconnecting the Karaš River," which will be carried out as part of the GEF DYNA project. The ESMF aims to outline the principles, procedures, and mitigation measures for addressing environmental and social impacts associated with the project in accordance with the laws and regulations of the Republic of Serbia and with SIPP.

Since the precise scope of activities that will be implemented as part of the pilot will only be determined during the implementation phase, site-specific social and environmental impacts are uncertain at this stage. Thus, the development of site-specific Environmental and Social Management Plans (ESMPs) is currently not feasible, and an ESMF is necessary to set out procedures for addressing potential adverse social and environmental impacts that may occur during project activities. Site-specific ESMPs will be developed pursuant to the guidance provided by this ESMF during project implementation.

The specific objectives of the ESMF include the following:

- Identify the positive and negative social and environmental impacts and risks associated with the implementation of the Project;
- Outline the legal and regulatory framework that is relevant to the Project implementation;
- Specify appropriate roles and responsibilities of actors and parties involved in the ESMF implementation;
- Propose a set of actionable recommendations and measures to mitigate any negative impacts and enhance positive impacts;
- Develop a screening and assessment methodology for potential activities, that will allow an environmental/social risk classification and the identification of appropriate safeguards instruments;
- Set out procedures to establish mechanisms to monitor the implementation and efficacy of the proposed mitigation measures;
- Outline requirements related to disclosure, grievance redress, capacity building activities, and budget required for the implementation of the ESMF.

In general, the anticipated adverse environmental and social impacts of project activities are positive, and adverse impacts are temporary, site-specific, reversible and can be readily mitigated. Thus, the DYNA Project is classified as a "Category B" project under the WWF Environmental and Social Safeguards Categorization Memorandum.

## 1.4 ESMF Preparation Methodology

The ESMF was prepared based on the following information:

a) Technical documentation provided by WWF Adria;

b) Desk review of the WWF SIPP and the Republic of Serbia's environmental and social assessment laws, regulations, and policies;

c) Stakeholder engagement workshop that was carried out by WWF Adria in June-August 2018 in Jasenovo, Bela Crkva Vršac;

d) Meetings and discussions with stakeholders undertaken as part of a safeguards mission for the DYNA project in January 2019.

# 2. Project Description

## 2.1 Background

The Karas River is a 110 Km long river in the Banat region of Vojvodina Serbia and Romania and a left tributary of the Danube. The lower part of the river is directed into the Danube- Tisza-Danube canal.

### (i) Jacenovo

There are three weirs that were built on the river stretch in Serbia. The first weir is close to the Jasenovo village situated in the Bela Crkva municipality in the Vojvodina province. The frontal weir is located near the mill which is not in operation. There is also a side weir close to the mill. The sluice gate which is not in a good condition regulates the water flow and there is also a side weir which is a local pond used for recreation purposes during the summer months. The weirs are at least 1 m high and do not allow any upstream migration of fish. The width of the entrance to the side branch is 45 m.

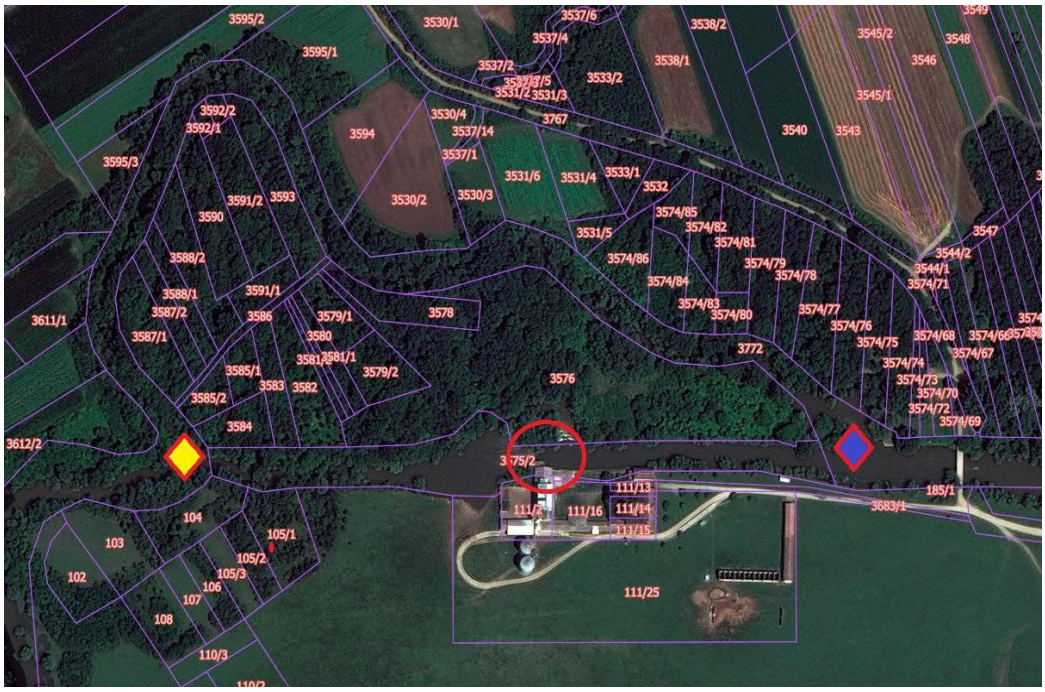

Figure 2: The mill by Jasenovo. Red circle: frontal and side weirs, blue square: entrance to side branch with side weir, yellow square: confluence of side branch and main course

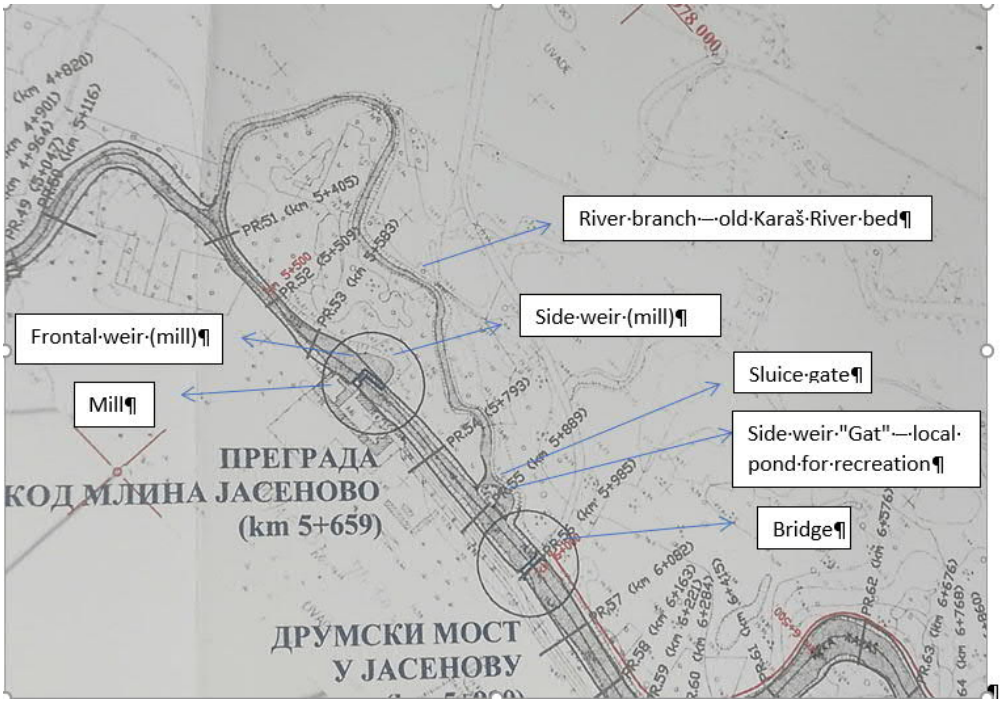


Figure 3: Details of the Jasenovo mill

## (ii) Straza

The second weir is in the Straza locality, which is situated 2.2 km upstream from the bridge between Hasnovo and Straza village. The weir is 38 m wide with a gradual descent. This weir is too high to allow upstream fish migration. The channel previously used for diversion for water to the mill is blocked.

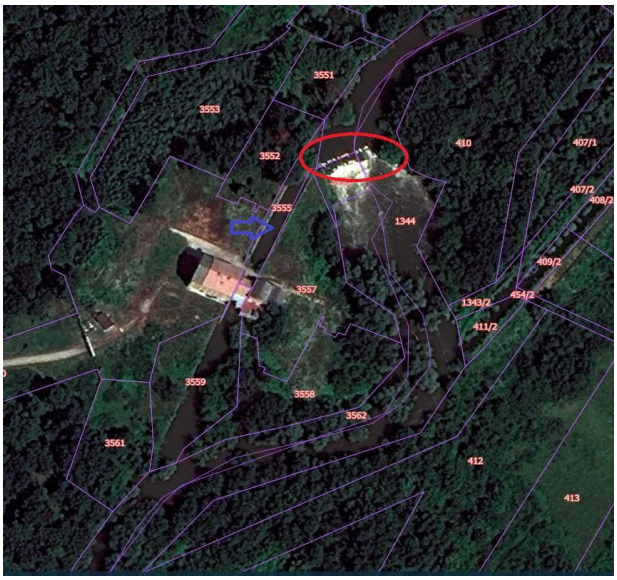


Figure 4: The mill by Straža. Red circle: the barrage, blue arrow: diversion channel

### (iii) Vojvodinci

The third proposed site is a barrage situated next to the Vojvodinci village and is used as a bridge. The mill is out of use and not operational, and the current function of the barrage is not clear. There is a diversion channel that is out of use and surrounds the mill on the west side. The barrage does not allow upstream fish migration due to increased flow velocity.

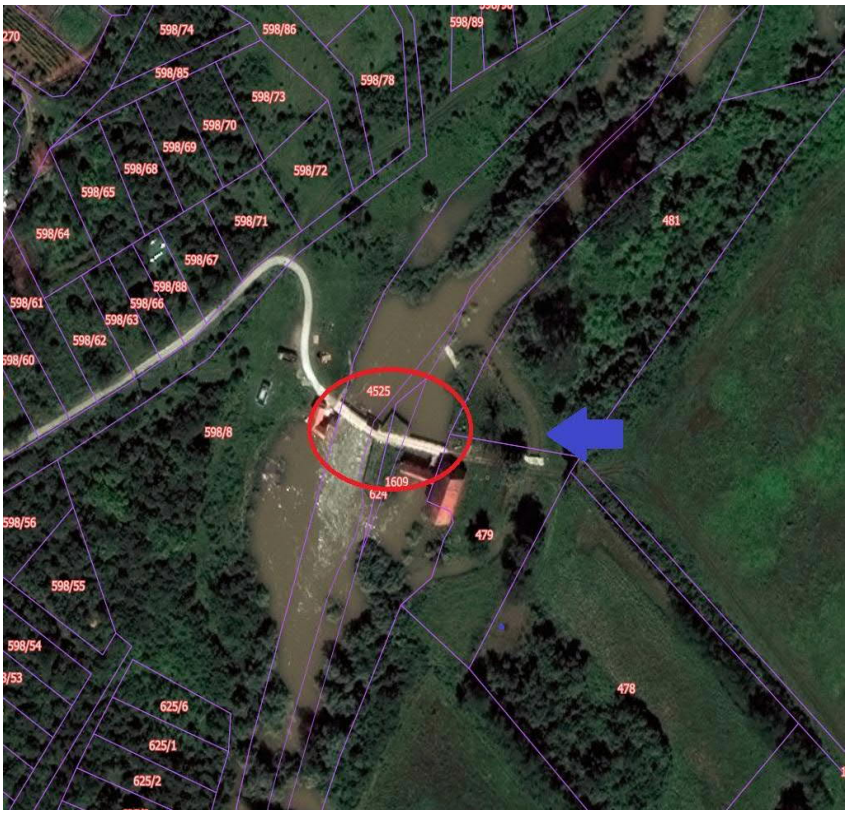


Figure 5: The mill by Vojvodinci village. Red circle: the barrage, blue arrow: diversion channel

## 2.2 Pilot objectives

The three weirs block fish migration and disrupt fish spawning. Local species are outcompeted by invasive species that are better adapted to the altered river hydromorphology. Furthermore, old meanders of the natural Karaš riverbed have high conservation values with a large number of species and habitats that are of European concern (Natura 2000). However, these old meanders are in danger due to siltation processes, exposure to natural succession and arrival of unwanted invasive species. The pilot project aims to tackle these problems.

The pilot project aims to demonstrate how to mitigate water engineering mistakes through sustainable solutions and how native species can be recovered. Karaš River was chosen for a pilot project as construction works are not expected to be significant and tangible progress can be made with limited budget.

The proposed activities will also strengthen compliance with the Water Framework Directive, restore populations of native species, and provide good practices examples and lessons for future interventions in other rivers in Serbia. They will also pave the way for planning future projects that will focus on recreational activities on the Karaš River for the benefit of local communities. Long-term maintenance and investment plans will be made after finishing the project-planning phase.

All pilot project concepts are based on ideas derived from interaction between water and nature management authorities and WWF and partner team members (pilot project development team).

## 2.3 Proposed pilot activities

Proposed pilot activities will include feasibility studies for each of the three sites that would identify the most appropriate designs for the construction of fish passes to allow upstream fish migration and increase the population of the Tinca Tinca (Tench) fish specifies. For one of the sites, which will be selected at a later stage, project activities will also include the preparation of technical documentation needed to obtain construction permit sites and the construction of the fish pass in accordance to the feasibility study. The specific technical specification of the fish passes will depend on the feasibility study to be conducted, taking into account the type of fish and their migration patterns.

Specific activities will include the following:

1. Feasibility studies for restoration measures at all three localities:
    1.1. Gathering relevant data on land use, land ownership an other legal requirements
    1.2. Conducting basic technical measurements for the purpose of feasibility studies
    1.3. Development of feasibility studies for all three localities
    1.4. Selection of one locality for implementation (construction)
2. Planning and design phase for a selected locality:
    2.1. Conducting detailed technical measurements: geodetic survey, sediment sampling, velocity measurements, etc.
    2.2. Planning permit and construction design according to local conditions and environmental impact assessments

2.3. Obtaining a construction permit

3. Construction work phase

3.1. Construction works (implementation of restoration measures)

4. Biomonitoring phase

4.1 Development of monitoring standard

4.2 Baseline sampling

4.3 Post-construction sampling

5. Project development for other two localities with a mid-term plan for bypassing of weirs

5.1. Consultations with major stakeholders: land owners, local government and responsible institutions on possible solutions

5.2. Recommending possible solutions and scenarios for bypass construction

5.3. Developing a mid-term plan for bypass construction

# 3. Project Area Profile

## 3.1 Geographic information

See the description of the pilot sites in section 2.1.

## 3.2 Biodiversity information

Karaš River is an atypical river in the Pannonia lowlands of Vojvodina, based on hydromorphological characteristics and the composition of fish fauna. Besides Nera River, in Vojvodina Province it is the only submontane river. It represents a transition between the region of barbel and upper cyprinid region. Based on data from field surveys and literature overview, a total of 24 species were found in the river (5 are strictly protected and 12 are protected on national level). Based on the ecological guilds, 8 species are reophilic (Table 1.).

Table 1. Fish species of Karaš River

| | Species | Strictly protected species | Protected species | Ecological guild |
|---|---|---|---|---|
| 1. | Esox lucius | | ○ | EU |
| 2. | Alburnus alburnus | | | EU |
| 3. | Alburnus bipunctatus | | ○ | RA |
| 4. | Aspius aspius | | ○ | RB |
| 5. | Barbus balcanicus | | ○ | RA |

| | | | | |
|---|---|---|---|---|
| 6. | Carassius carassius | · | | ST |
| 7. | Carassius gibelio | | | EX |
| 8. | Chondrostoma nasus | | ○ | RA |
| 9. | Cyprinus carpio | | ○ | EU |
| 10. | Romanogobio vladikovy | · | | RB |
| 11. | Pseudorasbora parva | | | EX |
| 12. | Rhodeus amarus | · | | EU |
| 13. | Rutilus rutilus | | | EU |
| 14. | Scardinius erythrophthalmus | | | ST |
| 15. | Squalius cephalus | | ○ | RA |
| 16. | Tinca tinca | · | | ST |
| 17. | Vimba vimba | | ○ | RA |
| 18. | Cobitis elongatoides | · | | RB |
| 19. | Silurus glanis | | ○ | EU |
| 20. | Perca fluviatilis | | ○ | EU |
| 21. | Sander lucioperca | | ○ | EU |
| 22. | Sander volgense | | ○ | ST |
| 23. | Lepomis gibbosus | | | EX |
| 24. | Protherorhinus semilunaris | | | EX |

Legend:

RA – Rheophilic A

RB – Rheophil B

EU – Eurytopic

ST – Stagnophilic

EX – Exotic (non native)

· – Strictly protected species (Annex I - Rulebook on the designation and protection of strictly protected and protected wild species of plants, animals and fungi („Official Gazette RS“ No. 5/2010, 47/2011, 32/2016 and 98/2016))

○ – Protected species (Annex II - Rulebook on the designation and protection of strictly protected and protected wild species of plants, animals and fungi („Official Gazette RS“ No. 5/2010, 47/2011, 32/2016 and 98/2016))

As a result of river regulation works during the last century, the lower course of the river became part of the Danube-Tisza-Danube Hydrosystem and its mouth was moved ca. 14 km to the north. The confluence is no longer with the Danube River, but with the Danube-Tisza-Danube channel

near the village of Dupljaja. These hydromorphological alterations (along with the construction of three barrages) caused changes in the composition and dispersion of fish fauna.

Fish species are unequally affected by the barrages, especially because of their specific ecological requirements. In general, the changes had a negative impact on the populations of rheophil and potamodromous species either by altering habitats, spawning and feeding grounds, or by disconnection with spawning grounds (no passability over the barrages). Short distance (up to 30 km/year) and long distance (between 30 and 300 km/year) migrations are limited to migrations up to the first barrage near Jasenovo, or local migrations between Jasenovo and Straza barrages, as well as Straza and Vojvodinci barrages and upstream above Vojvodinci barrage. Upstream migration of potamodromous species, e.g. Chondrostoma nasus, Barbus barbus and Vimba vimba, was interrupted. Thus, the number of their specimens upstream of the barrage is much smaller.

Downstream passability over these three barrages are rarely active, they are mostly random and accidental, and occur by drift with the currents mainly in spring or in the period of the year with high water levels (dependant on hydrometeorological conditions in the Karaš basin). The disruption of fish spawning by transverse barriers is considered one of the most harming effects on the freshwater fish populations, which results in spawning alteration and progressive depopulation of certain sepcific species.

The barrages also caused changes in fish populations; stagnophilous and eurytopics species became more abundant in Karaš. Formerly, the majority of fish species inhabiting Karaš were cyprinids, typical for the upland rivers characterized by rocky bottom and fast running waters.

Due to the connection of Karaš with the Danube-Tisza-Danube channel (artificial channel), the importance of upstream located natural river sections in Karaš, as well as near natural state river sections is far more greater, as well as the longitudinal connectivity.

Invasive exotic species (Pseudorasbora parva, Lepomis gibossus and Carassius gibelio), stagnophilous and eurytopic species are mainly present along the entire river stream of Karaš with varying abundance. Their numbers are increasing in slow flowing sections and backflows of barrages, where sediment deposition occurs (e.g. modified habitats on the stream sections immediately above the barrages). Hydrological alterations are present upstream of all three barrages, slowing down the stream and increasing the water level.

A detailed baseline study of biodiversity will be conducted prior to the initiation of construction works in the selected locality. Part of this study will be done in parallel with feasibility studies that address the restoration measures that need to be carried out in the three chosen localities. The estimated time for such a study is 12 months. The estimated costs are included in the budget for biodiversity monitoring.

## 3.3 Demographic information

Preliminary data on landownership has been collected and is provided below, but additional check-up on data relevance and accuracy (formal inquiries) will be done prior to the start of the planning and design phase in the locality that will be selected for fish pass construction. The estimated time needed for this stage is 3 months and the expected costs are 5000 euro.

### (i) Jacenovo

Landownership is both state and private. The mill is privately owned, and the cadastral parcel north of the mill (No. 3576) is state owned. Most communities near the site grow corn, wheat, and soy for agriculture purposes. The communities would like to keep the weirs in place, as they use the area for recreational fishing and swimming.

### (ii) Straza

The mill and surrounding forest are protected as national monument “Straza” on an area of 61 ha. The river is not included in the protected area. The mill is privately owned. It is currently out of use and is being renovated into a hotel. Any construction works in the vicinity of the mill would require a written access request to the mill owners.

### (iii) Vojvodinci

The land on the right side of the river, adjacent to the barrage and including diversion channel is private, while the land on the left side of the river is state owned. The mill is out of use and not operational, and the current function of the barrage is not clear. There is a diversion channel that is out of use and surrounds the mill on the west side.

# 4. Environment and Social Policy, Regulations and Guidelines

## 4.1 Republic of Serbia Policies, laws, Regulations Guidelines

Several legislative provisions and policies may be pertinent to the pilot project.

### (i) Water management

The central legal act that regulates water management in the Republic of Serbia is the Law on Waters (“OG OF RSRB”, no 30/2010 and 93/2012 , 101/2016, 95/2018 and 95/2018 - oth. law). The Law on Waters regulates the legal status of water resources, IWRM, water facilities and river basin land management, sources and means of financing water resources management, supervision over the implementation of the Law, as well as other issues, which are significant for water management (Article 1). Furthermore, the Law on Waters prescribes several types of planning documents, including: 1) Water Management Strategy for the Territory of the Republic of Serbia; 2) Water Management Plan; 3) Annual Water Management Program; 4) Plans for protection against adverse effects of water, consisting of: Flood Risk Management Plan, General and Operational Plan for protection against flood, as well as plans regulating water protection (Plan for protection of water against pollution and monitoring program) (Article 29). Strategy for the Water Management on the Territory of the Republic of Serbia was adopted in 2017 (“OG OF RSRB”, no 3/2017)

A draft Danube River Basin Management Plan was prepared in 2014, but was not adopted. It has to be harmonized with the current legislation (Water law amendments from 2016 and the Water Management Strategy from 2017).

The Water Law aimed at harmonization with the EU Water Framework Directive (WFD) and other EU legislation. Full harmonization is expected by 2021. Certain challenges are expected with the implementation of WFD in Republic of Serbia are due to lack of necessary data on monitoring as well as insufficient capacity of institutions that directly implement the EU WFD.

The monitoring of the status of water bodies is based on the Rulebook on Parameters of Ecological and Chemical Status of Surface Water and Parameters of Quantitative and Chemical Status of Groundwater (“OG OF RSRB”, no 74/2011) and complies with the requirements of WFD. However, certain elements that are required for monitoring are missing (macrophytes, fish and hydromorphology elements). Monitoring is currently implemented through national annual monitoring programmes, but its limited due to budget deficiencies (insufficient number of water bodies are covered, frequency of certain parameters is inadequate, etc.).

The implementation of the Flood Directive is currently under preparation. The first Preliminary Flood Risk Assessment (PFRA) was adopted in 2012. The aim and result of the PFRA is the determination and identification of areas with potential significant flood risk (APSFR) that affects human health, the environment, cultural heritage and economic activities. Based on significant floods in the past and possible future floods, 99 APSFR have been defined.

The National Environmental Protection Program ("OG OF RSRB", No. 12/10) provides the general policy framework in the field of environment, while basic law and "umbrella act" in the field of environmental protection is the Law on Environmental Protection ("OG OF RSRB", No. 135/04, 36/09, 36/09, 72/09, 43/11, 14/2016, 76/2018, 95/2018- other law). The act regulates systemic issues, thus having effect on certain aspects of water management, and furthermore contains general provisions (including the Article 23) that directly regulate water management. The on-going process of amending the law will provide several new aspects, such as: approval to use surface and ground waters as natural resources (Article 15), base for establishment of "Green Fund of the Republic of Serbia", determining deadline for their gradual breakdown, limit values reaching by legal entities and entrepreneurs who discharge wastewaters into the recipients or public sewage system, as well as treatment, disposal and usage of sludge, that is processing of sludge which is residue from waste water treatment plants.

Protection and conservation of nature, biological, geological and landscape diversity are regulated by the Law on Nature Protection ("OG of RSRB", No. 36/2009, 88/2010, 91/2010, corr. 14/2016 and 95/2018 - oth. law) and also by other regulations, including the Law on National Parks ("OG of RSRB", no. 84/15 and 95/2018- other law), Law on Wildlife and Hunting ("OG of RSRB", No. 18/10 and 95/2018- other law) and others. The Law on Nature Protection contains several provisions that directly refer to water resources management (e.g. Article 18 of the LNP - in wetlands and aquatic ecosystems with coastal areas, all actions and activities which endanger hydrological phenomena and preservation of biological diversity shall be prohibited (paragraph 3); in speleological objects (e.g. caves) and their surrounding area, it is forbidden to conduct construction works that may cause major unfavorable and permanent alterations of geomorphological and hydrological nature (Article 25, paragraph 4).

### (ii) Land Management and Expropriation

The Republic of Serbia Expropriation Law (passed in 1995 and enacted on January 1, 1996, amended in March 2001, amended again on March 19, 2009), does not use the term "involuntary resettlement", which is used in the relevant IFI policy documents, but instead uses the term expropriation. This law enables government institutions to acquire private property for projects that are considered to be of national and/or local interest, while protecting the interests of all project-affected persons with legal title, whose assets are to be expropriated. The law also enshrines the principle of fair compensation.

Expropriation can only be undertaken for public interest, which must be documented in the proposal for an expropriation decision. The Government agency responsible for property and legal affairs confirms public interest, based on a proposal by the investor. The agency that authorizes public interest can permit the investor to conduct preliminary studies on the lands to be expropriated after consultation with the owner(s). The investor submits an expropriation proposal to the local organ in charge of property and legal rights in the municipality in which the land is located. The proposal is based on a preliminary design and includes documentation confirming the investment in spatial plans and establishing public interest; Identification of the location and ownership of affected plots, with cadastre extract; Estimated cost of expropriation, based on standard evaluation principles; Proof that the estimated cost is deposited in an expropriation account. Plot owners are consulted before the expropriation decision is issued.

Compensation is based on the market value of the land and assets (or market rental value, if expropriation is temporary), transition expenses and damages. Compensation can be in cash or in kind-including substituting land or structures and replacing or moving structures. After public interests have been established, the investor can negotiate the amounts and condition of purchase with owners without resorting to expropriation. After the expropriation decision is issued, owners are notified in writing of the decision of their right to request expropriation of a whole plot, proposed compensation method and amounts and the timetable for processing; and are invited to negotiate. If negotiations are not successful, the local property and legal affairs office forwards documentation to the local court to determine compensation. The owner can also appeal to the court for a decision on compensation and the amount of land to be expropriate.

### (iii) Environmental Management

An Environmental Impact Assessment (EIA) in Republic of Serbia is regulated by the Law on Environmental Impact Assessment ("OG of RSRB"; No. 135/04 and 36/09) and complementary by-laws. The law and by-laws set out the requirements for undertaking environmental assessments of the potential environmental impacts of public and private projects which are likely to have a significant impact on the environment (anticipate potential environmental harm and to avoid or mitigate such harm while balancing environmental, social and economic objectives) before development consent / construction permit is granted in the form of an approval for project implementation.

The Serbian Ministry of Environmental Protection is the competent administrative authority for the EIA process for projects for which project development consent (e.g. construction permit) is issued by a State (national) authority, as it the Ministry responsible for environmental matters.

The types of projects that may require an EIA are determined in the "Decree determining a list of projects for which an environmental impact assessment shall be carried out and a list of projects for which an environmental impact assessment may be required" - EIA Decree ("OG of RSRB", No. 84/05 and 114/08).

Under the EIA Decree, projects are classified in two groups (lists): projects listed in List 1 are all subject to compulsory EIA while for projects in List 2, the assessment contains an element of discretion, noting that an EIA procedure will, in any event, be required for projects with potentially significant environmental impacts. The public and other parties are to be consulted on the EIA.

### (iv) Access to Information and Public Participation

In Republic of Serbia the access to information and public participation is regulated by several acts related to environmental protection, water management and other act, among which the Law on Free Access to Public Information ("OG of RSRB", No.120/04, 54/07, 104/09, 36/10) as a general framework law, the Law on Waters and the Law on Environmental Protection.

Serbia is a member state of the Convention on access to information, public participation in decision-making and access to justice relating to environmental issues (Aarhus Convention) ("OG of RSRB – International Agreements", No. 38/09). Apart of legislation framework, Serbia since 2011 has an Strategy for Implementing the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters ("OG of RSRB", No. 103/11), accompanied by an action plan. Both documents aim is to improve the dialogue between the public and decision makers on environmental matters. In that respect

Serbia also has four Aarhus centers (Kragujevac, Niš, Novi Sad and Subotica). The acts that have most developed procedure and rules for public participation in decision-making, are the ones regulating public participation in carrying out the EIA procedure, and in SEA.

## 4.2 WWF Safeguards Policies and Procedures Applicable to the Project

WWF's safeguards policies require that any potentially adverse environmental and social impacts are identified, avoided, or mitigated. Safeguards policies that are relevant to this project are as follows.

### (i) Policy on Environment and Social Risk Management

The project is classified as Category B based on initial analysis. Adverse environmental and social impacts that may occur as a result of project activities are expected to be site-specific, negligible and easily mitigated.

The exact location and impact of specific activities cannot be determined at this stage, and will only be known during project implementation. Thus, an ESMF was prepared to set out guidelines and procedures on how to identify, assess and monitor environmental and social impacts, and how to avoid or mitigate adverse impacts. Site-specific ESMP will be prepared as required, based on principles and guidelines of the ESMF.

### (ii) Policy on Protection of Natural Habitats

As stated above, the overall environmental and social impacts of the proposed project are expected to be overwhelmingly positive and the project expected impacts on Natural Habitats are also expected to be significantly positive, through efforts to address impacts from hydromorphological alterations through river restoration, nature-based solutions. Nonetheless, potential minor small-scale impacts on Natural Habitats may occur during construction of fish passes.

Provisions are be made in the ESMFs to adequately address such possibilities. Any other activity under the project will be screened for its potential to cause negative impacts to natural habitats under the ESMF procedures. If any such activity is likely to cause irreversible or significant damage to habitats it will be excluded from project grant funding.

### (iii) Policy on Involuntary Resettlement

The WWF's policy seeks to ensure that adverse social or economic impacts on resource-dependent local communities as a result from conservation-related restrictions on resource access and/or use are avoided or minimized. Resolution of conflicts between conservation objectives and local livelihoods is sought primarily through voluntary agreements, including benefits commensurate with any losses incurred. Involuntary resettlement is avoided or minimized, including through assessment of all viable alternative project designs and, in limited circumstances where this is not possible, displaced persons are assisted in improving or at least restoring their livelihoods and standards of living relative to pre-displacement or pre-project levels (whichever is higher).

The project is not expected to involve land acquisition leading to involuntary resettlement of project affected persons (PAPs). All project activities will be executed on government- or community-owned lands. Project activities are also expected to positively affect local communities' access to livelihoods. However, some of the planned activities may have some minor effects on the livelihoods of local communities, such as temporarily restricting access to fishing or recreational areas. To mitigate any adverse impacts, all activities that may affect local

communities' access livelihoods should be closely coordinated with community representatives and only carried out after consultations with all relevant stakeholders. If disturbance of access to livelihoods cannot be avoided, full and timely compensation shall be provided to all livelihood users, irrespective of their formal land ownership status or title.

#### (iv) Policy on Accountability and Grievance System

Project-affected communities and other interested stakeholders may raise a grievance at any time to the WWF Adria team and the Water Management Company in Vojvodine. The WWF Adria team will be responsible for informing project-affected parties about the Accountability and Grievance Mechanism. Contact information of the Project Team and WWF will be made publicly available. Relevant details are also provided in the Grievance Redress & Process Framework section of this ESMF.

The WWF Policy on Accountability and Grievance Mechanism is not intended to replace project- and country-level dispute resolution and redress mechanisms. This mechanism is designed to: Address potential breaches of WWF's policies and procedures; be independent, transparent, and effective; be accessible to project-affected people; keep complainants abreast of progress of cases brought forward; and maintain records on all cases and issues brought forward for review.

#### (v) Health and Safety

While there is no separate WWF policy on occupational and community health and safety, these issues are taken into account as part of the general WWF policy on Environment and Social Risk Management, and the screening process that applies to all project-related activities. These general standards require employers and supervisors to implement all reasonable precautions to protect the health and safety of workers through the introduction of preventive and protective measures. They also require to ensure that the labor rights of project-employed workers are observed, as indicated in the screening tool in Annex II.

Project activities should also prevent adverse impact involving quality and supply of water to affected communities; safety of project infrastructure, life and properties; protective mechanisms for the use of hazardous materials; disease prevention procedures; and emergency preparedness and response.

### 4.3 Gaps between the Republic of Serbia laws and policies and the WWF's SIPP

In general, the laws, policies, and guidelines of the Republic of Serbia (RoS) are in line with the WWF's environmental and social safeguards requirements. However, there are a few differences between the two systems, as discussed below. In all cases of conflict or discrepancy, the requirements of the WWF will prevail, for the purpose of the DYNA project, over RoS laws and regulations.

With regard to environmental impacts, there are no direct contradictions between the RoS laws and regulations and the WWF's SIPP, but the requirements of the latter are more extensive. For instance, WWF's SIPP require a thorough environmental and social analysis of the impact of specific project activities on the environment and on local communities before the activity is formally approved and any funds are disbursed. These requirements are beyond the environmental clearance process prescribed by the RoS legislation. All project activities should fully comply both with the RoS's Regulations on the Environmental Clearance of Projects, and with the procedures and mitigation measures prescribed in this ESMF. In case that the WWF's SIPP requirements are more extensive, strict, or detailed than the RoS legislation and policies, the former will apply to all project activities.

With regard to social impacts, the primary discrepancies between the RoS laws and regulations and the WWF's SIPP refer to the status of non-title holders and informal land use, and the commitment to participatory decision-making processes. First, according to the WWF's SIPP, all users of land and natural resources (including people that lack any formal legal ownership title or usage rights) are eligible to some form of assistance or compensation if the project adversely affects their livelihoods. The RoS laws only recognize the eligibility of land owners or formal users to receive compensation in such cases. Second, the WWF's SIPP require extensive community consultations as part of the development of various safeguards documents and during project activities. RoS legislation does not include similar requirements.

For the purposes of the DYNA project, the provisions of the WWF's SIPP shall prevail over the RoS legislation in all cases of discrepancy.

# 5. Institutional Framework

The primary government institution in charge of WRM in Serbia is the Water Directorate that is part of the Ministry of Agriculture, Forestry, and Water Economy. The Directorate is responsible for the following activities: water management policy; multi-purpose water use; water supply, excluding water distribution; water protection; implementation of water protection measures and systematic rationalization of water consumption; development of water regimes; tracking and maintaining water regimes creating and cutting RS borders; inspection oversight in the sphere of water management, as well as other activities set by law.

Monitoring and enforcement of environmental sectorial laws falls under the Ministry of Environmental Protection, whose responsibilities encompass: implementation of state monitoring over the quality of water, along with the implementation of prescribed and harmonized programs for surface water quality control, as well as groundwater of unconfined aquifers and precipitation; National Laboratory management; collection and integration of data on the environment, their processing and compiling of the report on the state of the environment and environmental protection policy; keeping the national information system in environmental protection; Cooperation with the European Environment Agency (EEA), etc.

While these two government ministries are the primary authorities for issues related to water resources management and environment protection, their engagement in the pilot activities will be relatively limited. The activities will be executed by the following entities:
ICPDR: will be responsible for the overall execution of the project and will chair the PSC. The ICPDR will be responsible for submission of all reports to the GEF Agency (technical and financial). The ICPDR will be responsible for hiring and supervising the project manager.

WWF Adria: overall management and oversight of the pilot activities; coordinating all activities and procuring the services of external institutions.

Institute for Water Management Jaroslav Černi: The Institute has long ranging experience with different projects on the Karaš river, and among other initiatives was engaged in the development of a flood prevention plan for the Karaš area.The suggested pilot activities will primary consist of feasibility studies for each of the three localities and thus will not require permits or approvals from the Water Directorate or the Ministry of Environmental Protection. These feasibility studies will be undertaken by the Institute for Water Management Jaroslav Černi, which was also the initiator of the pilot idea. As the Institute is primarily research-oriented, a separate entity will be required for the construction of a fish pass at the locality that will be selected based on the feasibility study findings.

Public Water Management Company of Vode Vojvodine: The company is a state-owned enterprise with extensive experience of procuring and overseeing construction works, as well as developing all technical documentations that is necessary to obtain construction permits. The WWF Adria team thus intends to delegate the management and oversight of the fish pass construction works to the Company.

The WWF Adria team will also engage the Institute for Nature Conservation of Vojvodina Province in the preparation of feasibility studies and any related research activities.

# 6. Anticipated Environmental and Social Impacts and Mitigation Measures

The Karas River pilot will include feasibility studies that would identify the most appropriate designs for the construction of fish passes to allow upstream fish migration and increase the population of the Tinca Tinca (Tench) fish specifies in three localities. For one of the sites, which will be selected at a later stage, project activities will also include the preparation of technical documentation needed to obtain construction permit sites and the construction of the fish pass in accordance to the feasibility study. The specific technical specification of the fish passes will depend on the feasibility study to be conducted, taking into account the type of fish and their migration patterns.

The impacts of the pilots are thus expected to be overwhelmingly positive. Minor and site-specific negative environmental impacts may include the following.

### Feasibility studies preparation phase

The first part of pilot activities will consist of research and preparation of feasibility studies, and will not have any negative impacts on the environment. Impacts on land access and usage are also not expected.

### Construction phase

Based on the findings of the feasibility studies, one locality will be selected for civil works and construction of a fish pass. Adverse environmental or social impacts as a result of these activities are expected to be minor and temporary.

Adverse environmental impacts that might be expected during fish pass construction works are temporary and may include minor water and soil pollution, noise, waste disposal, damage to flora and fauna, and health and safety risks. These impacts are expected to be local, temporary and can be readily mitigated. The potential environmental impacts and some recommended mitigation measures are outlined in the Table below.

Adverse social impacts. All construction works will be undertaken on government-owned land and no significant impact on local population quality of life is expected as no major construction is envisioned. There are no settlements in the area, but at least one of the potential locations (Jacenovo) is used for recreational fishing, swimming, picnics, cultural events, etc. Further, access to the construction site might be required through some of the privately-owned lands in other locations (Straza). Thus, minor social impacts may include restriction of access to recreational areas and the need to pass through privately-owned land to access the fish pass construction site. To mitigate these impacts, construction works should be carried out when the recreational areas are not used (or least used) by the public (e.g., out of the swimming season). Written access request should be provided to private land owners that may be affected by construction works,

and all adverse impacts of the works should be minimized. The potential social impacts and some recommended mitigation measures are outlined in Table 2 below.

While this ESMF outlines potential adverse impacts and general mitigation measures, an Environmental Management Plan will have to be developed upon the selection of the pilot implementation site. The EMP will rely on the specific conditions of the site and reflect the hazards that might result from the construction method that will be selected. It will include site-specific mitigation measures and monitoring requirements that will need to be undertaken by the Contractor and the Water Management Company. The EMP's mitigation measures encompass actions that will reduce hazards, which could impact health and safety of the construction workers, and the public; measures related to soil and water pollution from oil and fuel, noise, air quality (dust), excavation of materials and disposal of surplus soil/earth and other materials; etc.

WWF Adria will need to allocate a staff person to the oversight of safeguard requirements. Necessary budget will have to be assigned accordingly.

Annex II to this ESMF provides a format for the Screening of Environmental and Social Impacts for Pilot Activities that should be undertaken before any pilot activities are carried out.

Annex III provides a format for Environmental and Social Compliance Monitoring that should be carried out during the implementation of pilot activities.

| Adverse impact | Mitigation measures | Responsible authority |
|---|---|---|
| Environmental impact | | |
| Soil pollution<br>• Soil degradation.<br>• Contamination of surrounding soil with emission of gases or dust from transportation vehicles /construction machines.<br>• Contamination caused by temporary construction sites, temporary roads or disposing of waste.<br>• Contamination from discharging used waters from the construction site into soil. | • Provide slope protection through bank compaction, riprapping on critical sections, or vegetative stabilization<br>• Designate a Spoils Storage Area, with topsoil set aside for later use and allow maximum re-use of spoils<br>• Use material for restoration of degraded areas<br>• Discharge used waters in designated areas only | Contractor & Public Water Management Company |
| Water pollution<br>• Discharging diverse waste products from construction site process and construction site complex (liquids, particles and solid waste) on banks or directly into river beds leads to spread of pollution along the watercourse.<br>• Discharging used waters from the construction site (technological and hygienic) into watercourses.<br>• Waste material, mechanical oil, fuel etc. can be disseminated by malfunctioning construction machines and vehicles or negligent personnel.<br>• Location of machines, temporary construction material depots near rivers or surface watercourses. | • Ensure no pollutants, waste, or oil are released into the water<br>• Set up sediment traps along rivers and/or gabions along banks to filter out eroded sediments<br>• Provide slope protection through bank compaction, rip-rapping on critical sections, or vegetative stabilization<br>• Adjacent wetlands and streams shall be protected from construction site run-off with appropriate erosion and sediment control feature to include by not limited to hay bales and silt fences | Contractor & Public Water Management Company |
| Waste disposal<br>• Environmental pollution caused by improper waste management | • Waste collection and disposal pathways and sites will be identified for all major waste types expected from construction activities.<br>• Mineral construction will be separated from general refuse, organic, liquid and chemical wastes by on-site sorting and stored in appropriate containers.<br>• Construction waste will be collected and disposed properly by licensed collectors | Contractor & Public Water Management Company |

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| | • No open burning of wastes on or off site | |
| Air<br>• Construction works might result with increased concentration of polluting substances, primarily dust and exhaust gases from vehicles (machines engaged in the works execution).<br>• Suspended particles (dust) that will rise from transport roads when used for machinery transportation or trucks passing. | • Contractor to present proof of compliance with emission standards<br>• Wet areas of dust sources to minimize discomfort to nearby residents<br>• Control of vehicle speed to lessen suspension of road dust<br>• Keep the surrounding environment (sidewalks, roads) free of debris to minimize dust | Contractor & Public Water Management Company |
| Noise levels<br>• Human presence and execution of works at the location, and movement of vehicles and construction mechanization. | • Schedule equipment movement during non-peak hours of daytime vehicular traffic<br>• Avoid night-time construction activities and abide by local laws on construction hours | Contractor & Public Water Management Company |
| Flora and fauna<br>• Construction works might cause temporary disturbance of fish biodiversity and other wildlife.<br>• Emissions from trucks and construction machines might have negative impacts on vegetation around the construction site. | • Closely collaborate with WWF Adria, the Institute for Water Management Jaroslav Černi to ensure that the selected construction method does not adversely impact the fish biodiversity and other wildlife.<br>• Minimize any levels of emissions avoid heavy machines | Contractor & Public Water Management Company |
| Impacts on climate<br>• Sub-projects implementation will have no negative impact on climate. | | |
| Health and safety risks<br>• Construction workers, as well as the local population, may be exposed to health and safety risks during construction works | • Notify the public of the works through appropriate notification in the media and/or at publicly accessible sites (including the site of the works).<br>• Formally agree with the Contractor that all work will be carried out in a safe and disciplined manner designed to minimize impacts on neighboring residents and environment.<br>• Formally agree with the Contractor that workers health and safety requirements will comply with international good practice (always | Contractor & Public Water Management Company |

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| | hardhats, as needed masks and safety glasses, harnesses and safety boots).<br>• Appropriate signposting of the sites will inform workers of key rules and regulations to follow and emergency contact numbers.<br>• Provide on-site medical services and supplies for any emergency, through institutional and administrative arrangements with the local health unit.<br>• Provide portable water & sanitary facilities for construction workers. | |
| Social Impacts | | |
| Impacts on settlements, population, and livelihoods<br>• Restriction of access to recreational areas (for fishing, swimming, etc.)<br>• Need to access construction sites by passing through privately owned land | • Provide timely notification to the public regarding the planned works<br>• Carry out construction works out of the recreational season or when the usage of recreational areas is limited<br>• Obtain from private land owners access permits in a written form as prescribed by national legislation<br>• Minimize the disturbance of local population by construction works by following the recommendations above. | |
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# 7. Procedures for the Identification and Management of Environmental and Social Impacts

The following activities will not be financed by the DYNA project:

1. Activities that involve procurement or use of any pesticides categorized IA, IB, or II by the World Health Organization;
2. Activities that require private land acquisition;
3. Activities that require physical displacement of persons from their homes or legal businesses, irrespective of ownership;
4. Activities that involve felling of trees in project areas;
5. Activities that involve quarrying and mining;
6. Activities that involve commercial logging.

In advance of the initiation of any project activity, the implementing entity (the Public Water Management Company of Vode Vojvodine) should fill in detailed information regarding the nature of the activity and its specific location in the Safeguards Eligibility and Impacts Screening questionnaire (Annex II). Part 1 of this form comprises of basic information regarding the activity; Part 2 is based on the WWF's SIPP and applicable RoS laws and regulations. The implementing entity shall respond to the questionnaire, provide general conclusions regarding the main environmental and social impacts of the proposed activity, outline the required permits or clearances, and specify whether any additional assessments or safeguard documents (e.g., ESMP) should be prepared.

Issues that are considered as part of this environmental and social screening include the following:

a. Need for land acquisition;
b. Environmental impacts (e.g., dust, noise, smoke, ground vibration, pollution, flooding, etc.) and loss or damage to natural habitat;
c. Social impacts: identification of vulnerable groups, impacts on community resources, impacts on livelihoods and socio-economic opportunities, restrictions of access to natural resources, land usage conflicts, etc.; and
d. Health and safety issues (both for workers and for local communities).

The screening format should be undertaken by the implementing entity and reviewed by WWF Adria. If the screening process indicates that additional assessments or safeguards documents shall be prepared, these should be carried out by the implementing entity.

WWF Adria will review the application and environmental clearances with terms and conditions or outline additional conditions that should be met in order to obtain an environmental clearance.

# 8. Guidelines for ESMP Development

In case that the Environmental and Social screening process identifies any adverse environmental or social impacts as a result of specific project activities, the implementing entities should develop a site- and activity-specific ESMP. The ESMP should be prepared before the initiation of the project activity and closely follow the guidance provided in this ESMF.

The ESMP should describe adverse environmental and social impacts that are expected to occur as a result of the specific project activity, outline concrete measures that should be undertaken to avoid or mitigate these impacts, and specify the implementation arrangements for administering

these measures (including institutional structures, roles, communication, consultations, and reporting procedures).

The structure of the ESMP should be as follows:

(i) A concise introduction: explaining the context and objectives of the ESMP, the connection of the proposed activity to the project, and the findings of the screening process.

(ii) Project description: Objective and description of activities, nature and scope of the project (location with map, construction and/or operation processes, equipment to be used, site facilities and workers and their camps; bill of quantities if civil works are involved, activity schedule).

(iii) Baseline environmental and social data: Key environmental information or measurements such as topography, land use and water uses, soil types, flow of water, and water quality/pollution; and data on socioeconomic conditions of the local population. Photos showing the existing conditions of the project sites should also be included.

(iv) Expected impacts and mitigation measures: Description of specific environmental and social impacts of the activity and corresponding mitigation measures.

(v) ESMP Implementation arrangements: Responsibilities for design, bidding and contracts where relevant, monitoring, reporting, recording and auditing.

(vi) Capacity Need and Budget: Capacity needed for the implementation of the ESMP and cost estimates for implementation of the ESMP.

(vii) Consultation and Disclosure Mechanisms: Timeline and format of disclosure.

(viii) Monitoring: Environmental and social compliance monitoring with responsibilities.

(ix) A stakeholder engagement plan: in order to ensure that local communities and other relevant stakeholders are fully involved in the implementation of the ESMP, a stakeholder engagement plan should be included in the ESMP. The Plan should specify the issues outlined in Table 2:

Table 2: Stakeholder Engagement Plan

| | |
|---|---|
| Stakeholders Identification | Develop a list of relevant stakeholders that will be engaged in the particular activity. |
| Proposed method of engagement | Method of engagement to be used (workshops, forums, meetings). |
| Timing and outreach | Timing issues or requirements (at what stage of activity planning and implementation will stakeholders be engaged. Most of the communities have identified winter season as best time for community consultations.); and outreach requirements needed to ensure that all community members have an equal opportunity to take part in the consultations. |
| Identify Resources needed | Resources required for the engagement process. |
| Responsibility | Implementing entities and specific individuals that are responsible for carrying out the consultations. |
| Identify Key messages to communicate | Key messages to be conveyed to during the stakeholder consultations. |

| | |
|---|---|
| Managing Risk | Identifying the risks associated with the consultation process and measures that will be undertaken to mitigate or manage such risks. |

# 9. Monitoring

The compliance of the Karaš River pilot activities with the ESMF will be thoroughly monitored by various entities after the selection of the locality for pilot implementation and initiation of construction activities.

Monitoring at the project level. The overall responsibility for implementing the ESMF and for monitoring compliance with the Project's environmental safeguard activities lies with WWF Adria, which shall oversee the implementation of all field activities and ensure their compliance with the ESMF. WWF Adria will also provide the implementing entity (the Water Management Company) with technical support in carrying out environmental and social screenings and preparing ESMPs and any other necessary documentation. It shall also monitor the project's grievance redress mechanism (GRM) and assess its effectiveness (i.e., to what extent grievances are resolved in an expeditious and satisfactory manner).

Monitoring at the field activity level: The Water Management Company, which is the implementing entity, shall closely monitor all field activities, and ensure that they fully comply with the ESMF and with the terms and conditions included in the environment clearances issued by RoS's national authorities. The Water Management Company is also fully responsible for the compliance of all external contractors and service providers with the safeguards requirements outlined in the ESMF and ESMP (as applicable). After the beginning of the construction works, the implementing entity will provide WWF Adria with monthly monitoring reports. Disbursement of project funds to the Water Management Company will be contingent upon their full compliance with the safeguards requirements.

WWF Adria may conduct ad-hoc compliance monitoring visits to project sites to monitor compliance with the environmental clearance and with other safeguards provisions outlined in the ESMF, ESMP and/or in the RoS's legislation, as applicable. As part of such monitoring, the WWF Adria may issue recommendations or impose penalties as appropriate.

# 10. Grievance Redress

The Reconnecting Karaš River pilot may have impact on communities and individuals residing in the vicinity of the pilot site activities. There is thus a need for an efficient and effective Grievance Redress Mechanism (GRM) that collects and responds to stakeholders' inquiries, suggestions, concerns, and complaints. The GRM shall constitute an integral part of the pilot and assist WWF Adria and the Water Management Company in identifying and addressing the needs of local communities.

It is in the interest of the DYNA project to ensure that all grievances or conflicts that are related to pilot activities are appropriately resolved at the local level, without escalation to higher authorities or the initiation of court procedures. Project affected communities will therefore be encouraged to approach the project's GRM.

The GRM will operate based on the following principles:

1. Fairness: Grievances are assessed impartially, and handled transparently.
2. Objectiveness and independence: The GRM operates independently of all interested parties in order to guarantee fair, objective, and impartial treatment to each case.
3. Simplicity and accessibility: Procedures to file grievances and seek action are simple enough that project beneficiaries can easily understand them.

4. Responsiveness and efficiency: The GRM is designed to be responsive to the needs of all complainants. Accordingly, staff persons handling grievances must be trained to take effective action upon, and respond quickly to, grievances and suggestions.
5. Speed and proportionality: All grievances, simple or complex, are addressed and resolved as quickly as possible. The action taken on the grievance or suggestion is swift, decisive, and constructive.
6. Participation and inclusiveness: A wide range of affected people—communities and vulnerable groups—are encouraged to bring grievances and comments to the attention of the project implementers. Special attention is given to ensure that poor people and marginalized groups, including those with special needs, are able to access the GRM.
7. Accountability and closing the feedback loop: All grievances are recorded and monitored, and no grievance remains unresolved. Complainants are always notified and get explanations regarding the results of their complaint. An appeal option shall always be available.

Complaints may include, but not be limited to, the following issues:

(i) Allegations of fraud, malpractices or corruption by staff or other stakeholders as part of any project or activity financed or implemented by the DYNA Project;

(ii) Environmental and/or social damages/harms caused by projects financed or implemented (including those in progress) by DYNA Project;

(iii) Complaints and grievances by permanent or temporary workers engaged in project activities.

Complaints could relate to pollution prevention and resource efficiency; negative impacts on public health, environment or culture; destruction of natural habitats; disproportionate impact on marginalized and vulnerable groups; discrimination or harassment; violation of applicable laws and regulations; destruction of physical and cultural heritage; or any other issues which adversely impact communities or individuals in project areas. The grievance redress mechanism will be implemented in a culturally sensitive manner and facilitate access to vulnerable populations.

The Reconnecting Karaš River GRM will be administered by WWF Adria in coordination with the Water Management Company. WWF Adria will be in charge of the operation of the GRM, and the Water Management Company will assign an individual that will be responsible for collecting and processing grievances that address activities in the pilot site. The GRM will operate according to the following guidelines.

(1) Submitting complaints: Project affected people, workers, or interested stakeholders can submit grievances, complaints, questions, or suggestions either to the Water Management Company or directly to WWF Adria through a variety of communication channels, including phone, regular mail, email, text messaging/SMS, or in-person, by visiting the Water Management Company offices. It is important to enable to separate channels for complaint submissions in order to ensure that project affected people have sufficient opportunities to lodge their complaints to impartial and neutral authorities of their choice.

(2) Processing complaints: all grievances submitted to the Water Management Company and to WWF Adria shall be registered and considered. A tracking registration number should be provided to all complainants. To facilitate investigation, complaints will be categorized into four types: (a) comments, suggestions, or queries; (b) complaints relating to nonperformance of obligations; (c) complaints referring to violations of law and/or corruption while implementing project activities; (d) complaints against authorities, officials or community members involved in project activities; and (e) any complaints/issues not falling in the above categories.

(3) Acknowledging the receipt of complaints: once a grievance is submitted, the Water Management Company and/or WWF Adria shall acknowledge its receipt, brief the

complainant on the grievance resolution process, provide the contact details of the person in charge of handling the grievance, and provide a registration number that would enable the complainant to track the status of the complaint.

(4) Investigating complaints: The Water Management Company and/or WWF Adria will gather all relevant information, conduct field visits as necessary, and communicate with all relevant stakeholders as part of the complaint investigation process. The concerned authorities/offices dealing with the investigation should ensure that the investigators are neutral and do not have any stake in the outcome of the investigation. A written response to all grievances will be provided to the complainant within 10 working days. If further investigation is required, the complainant will be informed accordingly and a final response will be provided after an additional period of 10 working days. Grievances that cannot be resolved by grievance receiving authorities/office at their level should be referred to a higher level for verification and further investigation.

(5) Appeal: In the event that the parties are unsatisfied with the response provided by the GRM, he/she will be able to submit an appeal to the Republic Water Directorate at the Ministry of Agriculture, Forests, and Water Economy within 10 days from the date of decision. The Ministry shall verify and investigate the complaint according to its regular procedures. In the event that the parties are unsatisfied with the decision of the Ministry, they can submit their grievances to the Court of Law for further adjudication.

(6) Monitoring and evaluation: The Water Management Company shall submit a monthly report with full information on the grievances they received to WWF Adria. The report shall contain a description of the grievances and their investigation status. Summarized GRM reports shall constitute part of the regular pilot progress reporting.

Information about channels available for grievance redress shall be widely communicated in communities residing in the vicinity of the pilot activities site and to all relevant stakeholders. The contact details (name, phone number, mail and email address, etc.) of the Water Management Company authorities and WWF Adria shall be disseminated as part of all public hearings and consultations, in the Water Management Company offices, in the local media, in all public areas in affected communities, and on billboards in the vicinity of project activity sites and workers' camps.

The GRM seeks complement, rather than substitute, the judicial system and other dispute resolution mechanisms. All complainants may therefore file their grievance in local courts or approach mediators or arbitrators, in accordance with the legislation of the RoS.

# 11. Disclosure and Stakeholder Engagement

Stakeholder engagement workshops were organized by WWF Adria in June-August 2018 with representatives of national and regional water management institutions, local government and state-owned corporations, private companies, local community, and local non-governmental organizations. Additional meetings with local government in Vojvodina and the Water Management Company were undertaken as part of a safeguards mission conducted in January 2019.

All affected communities and relevant stakeholders shall be informed about the ESMF requirements and commitments. The ESMF shall be available on the websites of WWF Adria and the Water Management Company, as well as the website of the WWF US. Hard copies of the ESMF will be placed in appropriate public locations in the Water Management Company. The Company will be responsible to raise community awareness regarding the requirements of the ESMF, and will also ensure that all external contractors and service providers are fully familiar and comply with the ESMF and other safeguards documents.

During the implementation of construction activities, activity-specific ESMPs shall be prepared in consultation with affected communities and disclosed to all stakeholders prior to project concept finalization. The draft ESMP shall be reviewed and approved by WWF Adria.

Disclosure should be carried out in a manner that is meaningful and understandable to the affected people. For this purpose, the executive summary of ESMPs or the terms and conditions in environment clearances should be disclosed on the Water Management company and WWF web sites.

Table 3: Disclosure framework for ESMF related documents

| Documents to be disclosed | Frequency | Where |
|---|---|---|
| Environment and Social Management Framework | Once in the entire project cycle. Must remain on the website and other public locations throughout the project period. | On the website and in the offices of the Water Management Company and WWF Adria. |
| Environmental Assessment Reports | Once in the entire project cycle for every activity that requires an EA. Must remain on the website and other public locations throughout the project period. | On the website and in the offices of the Water Management Company and WWF Adria. |
| Environmental Management Plan/s | Once in the entire project cycle for every activity that requires EMP. Must remain on the website and other disclosure locations throughout the project period. | On the website and in the offices of the Water Management Company and WWF Adria. |
| EMP - Monthly Progress Report | Monthly | Water Management Company |
| Grievance redress process | Throughout the project cycle | Offices of the Water Management Company and WWF Adria |

# 12. Budget

The EMSF implementation costs, including all costs related to compensation to project affected people, will be fully covered from the DYNA Karas pilot budget.

WWF Adria, which will be in charge of coordinating and supervising all pilot activities, will need to allocate a staff person to the oversight of safeguard requirements. Necessary budget will have to be assigned accordingly.

# Annex I. Stakeholder Engagement Workshop

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|---|---|
| GEF DYNA<br>STAKEHOLDER ENGAGEMENT WORKSHOP<br><br>Karaš<br>Pilot Project | z |
| | |
| GEF-6 Project "Regional (Bosnia-Herzegovina, Moldova, Montenegro, Ukraine, Serbia) Danube River Basin Hydromorphology and River Restoration<br>(GEF DYNA)"<br><br>June- August 2018 - Jasenovo, bela Crkva and Vršac, Serbia | |
| | |

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# 1 Introduction

Stakeholder positions and opinions for the Karaš Pilot site were assessed in series of meetings. The area was visited in June (one visit) and August 2018 (two visits). Before the first visit an initial mapping of stakeholders was done by consultation with experts working in the region and by internet research. The focus was on local stakeholders: local community, local government and local organizations. However, stakeholders which are not local sensu stricto were assessed as well, if their power and interest was estimated as high and relevant for the project.

During the mapping and searching for stakeholders, specific attention was given to gender mainstreaming and equal participation of genders in the assessment. The intention was to look for representatives of less represented gender (in this case women). The target area is multi-ethnic, since it is very close to Romanian border. Therefore, all relevant information about the ethnic minorities or any other vulnerable groups were collected.

All stakeholders who were met during the assessment were asked with standard set of questions (previously agreed within the project team) and then continued with free-form discussion (or semi-structured discussion). All stakeholders were met in the localities around the pilot sites (Jasenovo, Bela Crkva, Vršac) or on the Karaš pilot sites.

The assessment was done by Goran Sekulić (in June) and Ljubomir Pejčić (in August)

# 2 Introduction of participants

The stakeholders met during the assessment can be grouped in a following way:

1. Representatives on national institutional stakeholders – (1 representative)
2. Representatives of regional institutional stakeholders- (3 representatives)
3. Representatives of local government and public companies- (3 representatives)
4. Private companies (2 representatives)
5. Local community (5 representatives)
6. Local organizations (2 representatives)

# 3 Project Presentation

Short presentation of the GEF-DYNA project was given to each stakeholder met (on each meeting). Printed maps and illustrations were used. The content and details provided were adapted to the stakeholders (with professionals the discussion about the project was more detailed.

# 4 Pilot Project Presentation

The presentation of the planned activities on pilot sites was given to each stakeholder (on each meeting). The presentation was adapted according to the stakeholder background. Maps and illustrations were used to ensure easier understanding. With some stakeholders, presentation was done directly on the site, what was found the best way for discussion with local stakeholders.

# 5 Aspects discussed (project & proposed pilot project)

Generally, the discussed issues were focused on the proposed activities on the site. Each of the meeting started with standard questions about the project. In particular, those were:

- How they find the idea?- no stakeholder involved in the assessment was strictly against the proposed actions. All of them don't see the idea as problematic or conflicting their interest. Some of the local stakeholders were sceptic about the functionality and effects of the proposed measures. Many of the interviewed stakeholders (local and those not working in water management or nature conservation) are not familiar with specific issues related to water management and they didn't have clear idea what the proposed actions will look like in reality.

- Is it feasible?- there were no major issues identified in regards feasibility of the actions. Some of the interviewed stakeholders have significant experience with the water management. As well, local stakeholders (fishermen and local environmental organization) have some experience in regulating and management on the Jasenovo locality since they use it for recreation for many years (maintaining of a beach and recreation area by the river). Some local stakeholders raised concerns about feasibility of activities on private land (Straža locality).

- Is it relevant for them?- river connectivity is a new topic in Serbia, even among professionals. Public awareness is on ecological connectivity issues or nature based solutions in water management is still very low. Due to that, it was somehow expected that local stakeholders will not recognize or understand the relevance for them. Some of the stakeholders see the high relevance of the pilot activities. Those are mostly institutional stakeholders dealing with water management and nature conservation. As well, some of the local anglers and their organizations have recognized the relevance of the pilot actions but they are not sure whether the activation will be effective. For most of the others, relevance is not that much recognized, primarily because they don't see any direct connections with their activities. However, any improvement of the Karaš river is welcomed since they find it as an important local resource.

- Is it in conflict with any other function/activity? – no major conflicts were identified during discussions with the stakeholders. On Jasenovo locality the situation is pretty much clear. The locality is very much visited by local inhabitants and used for recreation (bathing, fishing, picnics, cultural events). If the proposed actions don't interfere with this, and it is assumed it will not, they don't see any issues. However, some potential synergies and additional values are identified as possible and achievable (improving of recreation area, beach etc.). Part of the land around Jasenovo locality is in private hands (Mill Stari Banat). The private owner has supported local activities on the locality before and it is expected they will not oppose the planned activities.

- Will it affect their work/life? -the recognized potential impact of planned activities on the stakeholders differs among groups. Professionals working in the institutions see the activities as a great opportunity to scale up the issue of river connectivity. As well, representatives of local governments (tourism organization) see them as an opportunity for raising of the visibility and tourism potentials of the region (although not that high). Local stakeholders are mostly indifferent in regards this question. They don't see direct impacts by themselves, although they positively react on explanations and discussion with interviewers or other stakeholders.

- How Karaš river is important for them? - local stakeholders are very proud of the Karaš river and they would like to protect it and to improve its status. Many recreational and cultural activities are connected with the river. Angling is important activity for locals with some potentials in tourism. Comparing to other neighbouring, bigger waters like Danube-Tisa-Danube chanell or Danube, Karaš is attracting much less people. Traditional agriculture (cattle grazing) is as well present in and around project localities. The farmers still use the water from the river for cattle and they find that important. Local governments as well find Karaš as an important part of their communities, although some concerns about flooding exists. The regional and national stakeholders emphasize that Karaš is one of the last almost unregulated rivers in Vojvodina province and due to that it has specific significance. Private companies don't use the water from the river directly (although that was the practice before: mills and hydropower). Now, they recognize it mostly as ambiental/landscape value important for tourism (especially at the Straža locality).

- Who should be involved/asked about?- for sure additional discussion have to be done with private companies working in the region. Their representatives always emphasized that their inputs cannot be taken as definite but just as an orientation for future discussions. Local government representatives as well raised the issue of their limited responsibilities.

The stakeholders were allowed to raise additional issues which they find relevant (not necessarily in direct link with the proposed activities). Among them were:

- Issue of flooding in the area- the area is very sensitive to flooding. Some serious floods happen in the past period. After regulation works in Romania after 2000, the floods have decreased in the intensity and frequency. Anglers which are regular on the river say that the water level fluctuates for 1 to 1.5 maximally. However, concern about flood disasters is still present among the people living in the area. Some plans for, extensive flood prevention (without river regulation and building of large semi-natural flooding areas) exist but their implementation is questioned.

- Traditional activities on proposed sites-on the Jasenovo locality there are a lot of different cultural and recreational activities and the locality is important and often used by the community. They organize artist colonies, picnics, school events and similar activities. Almost all local stakeholders emphasized that.

- Local economy- as in other regions of Serbia there is an obvious depopulation trend in rural areas. People are living small villages and settlements and leaving for bigger cities (Pančevo, Vršac, Novi Sad, Beograd). Most of the stakeholders name the current economic situation, especially unfavourable situation in agricultural sectors, as the main cause for that. Some opposite trends are happening, but they are very limited in number and mostly include elder people coming back to

rural areas. Generally, this can be pointed out as one of the main issues in the community. Most of them see larger investments and intensive agriculture projects as something which could change the situation.

- Angling and anglers associations- they are one of the main beneficiaries of the proposed activities although some of them are not convinced with the effectiveness of the proposed actions. Representatives of anglers association Nera from Bela Crkva were involved in the assessment together with fish-guards from public enterprise Vodevojvodine, which is the user of "Banat" fishing area.

- Eutrophication of the river: the interviewed anglers raised the issue of eutrophication of rivers and step-wise over-growing of wetlands and river banks. This is probably the consequence of recent water regulation measures (upstream in Romania) which has disturbed the natural water regime. As well, decrease in cattle numbers probably contributes to this as well.

- Protected area Karaš-Nera: the area is recently established (2015). It is managed by local government, actually Public utility company "Belocrkvanski komunalac" (recently nominated). The area is not including the proposed pilot sites. Karaš river is not within the boundaries of the protected areas which is located south from Karaš towards Nera. Generally, local inhabitants do not recognize the importance of the area, they are not informed or involved in the management and they don't recognize any specific benefit from it.

- Drinking water supply- Karaš is not significant source of drinking water. There are no larger facilities for water extraction and distribution. Some wells near the river are still present and used by local inhabitants (drinking, farming, for cattle). Irrigation is on a individual scale and incidental.

# 6 Conclusions

Stakeholder assessment for the Karaš pilot site was conducted in June and August 2018 in series of meetings with identified institutional and local stakeholders. No major conflicts with the project idea were identified and almost all interviewed stakeholders expressed themselves positively about the project idea. The relevance of the project is not evenly recognized. Institutional stakeholders working in the field of water management and conservation are much more positive when they rate the project relevance in comparison to local stakeholder. Generally, the awareness on environmental issues and especially river connectivity is very low. Local stakeholders which are not directly engaged in environmental policies don't have enough knowledge to recognize the significance of such specific activities. During discussions, when some potential positive aspects were explained, local stakeholders were able to link them with their needs and current activities. This points out the need for additional awareness raising and capacity building activities for local people which should be integrated in the project if possible.

No current activities or plans which are in direct conflict with the project were identified. Even the ongoing activities in privately owned areas (hotel reconstruction on Straža locality) are not necessary conflicting.

Jasenovo and Straža locality are very important for local stakeholders because of cultural and recreational activities they practice there. As well, pastures along Karaš near Jasenovo and Straža, are important for farmers and cattle breeders. Some synergies and added values of the project should be considered.

Due to low awareness of the local people additional assessment and engagement process with local inhabitants should be considered. As well, specific attention should be given to private companies and landowners who should be additionally approached with more specific information.

# 7 Next steps

In the assessment process some gaps were identified which should be addressed in the future implementation of the project. These gaps are mainly related to lower participation of local inhabitants and private owners. Due to that, additional activities should be considered:

- to improve assessment of local inhabitants and local community with specific attention on gender and vulnerable group issues

- to improve engagement with major private owners since they prove to be very delicate in accessing and expressing definite positions.

For the engagement of local inhabitants specific efforts for approaching them should be planned. During this assessment several local organizations were identified which could help in this (i.e. local women organization "Jasenovčanke").

Private owners should be approached with more information and technical details if they are asked to bring more decisive positions. Specific meetings should be organized with support of responsible institutions (water management authorities, nature conservation authorities)

# 8 Gender issue

QUESTION MAP

Below you find outlined the questions contributing to the gender mainstreaming in the project. They are formulated as assumed they are asked after the explanation of the essence of the project. Fill in the cells with the summaries of answers. Add comments if needed.

Notes

Predominant feedback = what most of men or women say, what the commonly agreed ideas are

Unique feedback = ideas that are expressed by 1 or 2 members should be documented as well

| Area of interest | Questions | Predominant women's feedback | Unique women's answers | Predominant men's feedback | Unique men's answers |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| 1. Needs and interests | 1.1. What are the most salient needs in your area at the moment? | -economic development<br>-depopulation<br>-unemployment | | economic development<br>-depopulation | |
| | 1.2. What do you lack most of all in the community? | -people (depopulation)<br>- job positions<br>- social content (events, activities) | x | -people (depopulation)<br>- developed agriculture | |
| | 1.3. Why are these water resources important to you? | - tradition<br>- recreation<br>- landscape value<br>- culture events | X<br>X | - farming and tradition<br>- recreation<br>-fishing | |
| | 1.4. How do you use these water resources in your everyday life? E.g.:<br>- everyday activities<br>- health<br>- access to food and water<br>- etc. | -recreation<br>-farming/ cattle breeding<br>- culture and tourism | | -farming/ cattle breeding<br>- fishing<br>-recreation | |

| | | | | | |
|---|---|---|---|---|---|
| | 1.5. Do your work and income depend on this water basin? In what ways?<br>- Your personal?<br>- Your family's? | - Not directly<br>- Cultural events<br>= | | -Not directly<br>-For cattle breeding (pastures are depending on water from the river) | |
| 2. Participation in the implementation of the project | 2.1. Who do you think has the most responsibility for the success of the project? | - national governmental institutions<br>- local governments | | - national governmental institutions<br>- local governments | |
| | 2.2. Do you feel that the community has knowledge and capacity to contribute to the project? | - yes | | - yes<br>- not really | |
| | 2.3. Whose opinions are necessary to account for while implementing the project, to your mind? | - local government (high positions)<br>- private owners | | | |
| 3. Results:<br>expectations, benefits, and | 3.1. What would you see as the best outcomes of the project? | - improved public space around the river | | - improved fish populations and improved potential for fishing tourism | |

| | | | | | |
|---|---|---|---|---|---|
| potential losses | - For you personally, for your family, for the community? | | | | |
| | 3.2. What do you expect from the project realistically? | - more people visiting the area | x | - this is more relevant for national and governmental level, not so for local community | |
| | 3.3. Which improvements in the community or in your life do you want to have? | - better economic situation<br>- more people living in the area and visiting the area | | - better economic situation<br>- improved agricultural production | |
| NB! Observe and specify who is mostly answering to THIS question and what: → | 3.4. What are your main concerns and worries about the project? | - disturbing traditional activities | | - other ecological issues can undermine the effect of the project | |
| | 3.5. In what ways can the project activities make lives of other members of the community better? Children? Elderly? | - improving of recreational facilities and programs | | - Increase the visibility of the region | |
| | 3.6. Are there any reasons why you do not want the project or any | -no | | no | |

| | | | | | |
|---|---|---|---|---|---|
| | of its parts to take place? | | | | |

GENERAL SUMMARY OF THE MEETING (TO BE FILLED IN AFTER THE MEETING)

1. . Total number of men in the meetings: ___16 + anonymous local inhabitants _____
2. Total number of women in the meetings: ____8_____
3. Was there any conflict of interests between and among men and women during the meeting?
   _No_____
4. Did men or women dominate over each other considerably in terms of time they spoke, the amount of feedback they gave, etc.? __There were no significante difference between women and men during the meetings. However, men were clearly dominating in random talks in the field (farmers, shepards)_____
5. Describe briefly how men and women responded to each other's comments and opinions. (Supportive/indifferent/disapproving? Are they aware of each other's special needs and expectations?) _

In talks with institutional stakeholders, the discussion was supportive and there were no significant negative reactions between men and women. Women representatives of local governments and local public companies were reserved in bringing definite conclusions and have emphasized the need of additional consultations with superior. Women were underrepresented among local inhabitants and it is hard to estimate their positions in local community. Additional consultations would be needed.

6. Other comments: no

# 9 Annex - List of participants

| Nr. Crt. | Name | Institution/Country | Position | Contact details |
|---|---|---|---|---|
| 1 | Marija Lazarević | Ministry of Agriculture, Forestry and Water Management, Directorate for Waters | Head of department for international cooperation | marija.lazarevic@minpolj.gov.rs |
| 2. | Sanja Pantelić | PE Vodevojvodine | Expert associate | |
| 3. | Đorđe Zlatanović | USR Nera bela Crka | President | zlatanovic.dj@gmail.com |
| 4. | Dušan Aničić | PE Vodevojvodine | Fish warden | +381 64 8070508 |
| 5. | Tibor Mesaroš | Vršac | Local inhabitant/angler | +381 60 3390655 |
| 6. | Vlada Todorović | Bela Crkva | Local inhabitant/angler | +391 62 212757 |
| 7. | Tanja Bošnjak | Institute for Nature Conservation of Vojvodina Province | Expert associate | Tanja.bosnjak@pzzp.rs |
| 8. | Laszlo Galamboš | Institute for Nature Conservation of Vojvodina Province | Expert associate | Laszlo.galambos@pzzp.rs |

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|---|---|---|---|---|
| 9. | Srpko Savić | Ecological Society “Karaš” | President | + |
| 10. | Šandor Šipoš | Fish study and protection society | | Sljandor@gmail.com |
| 11. | Snežana Jungić | Public water management company “Ušće” / Bela Crkva | Expert associate | +381 69 403 00 47 |
| 12. | Mladen Jordanov | Kovin | Local inhabitant | +381 65 4959250 |
| 13. | Nataša Kovačević | Mlin Stari Banat-Jasenovo- Dubako doo | Privat owner | Interviewed by phone |
| 14. | Milica Vitomirov | Public Utility Company “Belocrkvanski komunalac” | Director | +381 13 2851255 |
| 15 | Tamara Kovačević | Celanova Capital ltd/ Vršac | Director | Interviewed by phone |
| 16. | Jelena Petković | Jasenovo | Local inhabitant | - |

# Annex II. Format for Screening of Environmental and Social Impacts for Pilot Activities

PART 1: BASIC INFORMATION

| | | |
|---|---|---|
| 1 | Pilot Activity Name | |
| 2 | Pilot location: | |
| 3 | Design Parameters (area/length) | |
| 4 | Preparation period | |
| 5 | Construction | |
| 6 | Project completion and operation | |
| 7 | Total investment capital | |

PART 2: IMPACTS SCREENING

Answer the questions below and follow the guidance to provide basic information regarding the suggested activity and describe its potential impacts.

Describe the total land requirement as well as the current land use pattern of the proposed project site under the following headings:

Agricultural

Government

Forest

Private

Others

Total

State the reasons for selecting the proposed site:

Describe the terrain characteristic at the project site and in surrounding area:

Describe the project activities

Technology to be used

Provide the following details, wherever it is applicable

Total site area: ---sq feet

Total built up area (provide area details) and total activity area:

Source of water and total water requirement ($m^3$/day)

Source of energy and total energy requirement

Parking/Stockyard requirements

Describe the list of raw materials to be used in the manufacturing process, their daily consumption, sourcing, and methods of storage.

Describe list of hazardous chemicals, toxic or inflammable substances (including carcinogenic materials) to be used in the process, if yes, then specify

Type of material

Daily requirements

Storage methods

Details of waste types (solid/liquid and gas) including the quantity and characteristic of waste, if any.

Employment potential in term of numbers, during construction and operational stage including the daily or average working hour:

Table 1: Sensitivity of the project site and adjoining areas

| S.No | Information/Checklist confirmation | Yes/No | Provide explanation and supporting documents wherever applicable |
|---|---|---|---|
| | The suggested activity will affect the access of people to common resources. For example, the site was initially used as common grazing land, or fishing pond, or source of revenue for local community/ community forests etc.) | | |
| | The suggested activity entails risk to aquatic flora and fauna due to release of wastewater | | |
| | The suggested activity's site or adjoining areas used as routes by the public/tourists to access recreational/tourist site areas in the vicinity | | |
| | The suggested activity's site or adjoining areas occupied by sensitive man-made land user (schools, park, playground/religious site/community facilities) | | |

Table 2: Change in physical structure (topography, land use, changes in water bodies, etc.) due to construction and operation of the development project

| S.No | Information/Checklist confirmation | Yes/No | Provide explanation and supporting documents wherever applicable |
|---|---|---|---|
| | Potential to cause permanent or temporary change in land use, land cover or topography. | | |
| | Will the suggested activity involve clearance of existing land vegetation? | | Number of trees to be cut down:<br><br>Total land area of vegetation cover removed:<br><br>Estimated economic value of the trees, crops and vegetation to be cut down / removed and any replacement costs (e.g., fees, registration, taxes): |
| | Will the suggested activity involve demolition of existing structures? | | |
| | Will the suggested activity trigger land disturbance, erosion, subsidence and instability | | |
| | Will the suggested activity involve construction of new roads during construction and operation? | | |
| | Will the suggested activity involve closure or diversion or realignment of existing natural drain? | | |
| | Will the suggested activity have potential to increase influx of people either temporarily (workers) or permanently to an area? | | |

| | | | |
|---|---|---|---|
| | Will the project involve abstraction or transfers of water from ground or surface water? | | |

Table 3: Use of resources for construction or operation of the project (such as land, water, materials or energy

| S.No | Information/Checklist confirmation | Yes/No | Provide explanation and supporting documents wherever applicable |
|---|---|---|---|
| | Expected quantity of water to be used by the project during construction and operation including source of water | | |
| | Expected Quantity of construction materials to be used – stone, aggregates and soil (in MT) and mode and place of sourcing. | | |
| | Energy requirement – electrical energy (in kWh) and fuel (coal, gas, diesel others in tons) and mode of sourcing. | | |
| | Will the suggested activity interrupt with power line right of way, irrigation canals, drains, roads, etc. exist, they may be affected or cause any other blockage? | | |
| | Any other resources (use appropriate standard units) | | |

Table: 4 Production of solid wastes and liquid during project construction and operation

| S.No | Information/Checklist confirmation | Yes/No | Provide explanation and supporting documents wherever applicable |
|---|---|---|---|
| | Will the suggested activity have potential to generate solid wastes, if yes, then specify types and quantity of wastes, wherever it is applicable | | |

| | | | |
|---|---|---|---|
| | Will the suggested activity have potential to generate sewage sludge, wastes such as domestic and commercial wastes | | |
| | Will the suggested activity have potential to produce hazardous waste from process, treatment plant and other allied activities? | | |
| | Any other wastes (specify) | | |

Table: 5 Air pollution and emissions

| S.No | Information/Checklist confirmation | Yes/No | Provide explanation and supporting documents wherever applicable |
|---|---|---|---|
| | Will the suggested activity have potential to alter ambient air quality during construction and operation? | | |
| | Emissions from production processes and/or utilities, specify the type of pollutants, if applicable. | | |
| | Potential to generate odour from handling, storage, process and operation of pollution control equipment. | | |
| | Emissions from incineration of waste, if applicable. If yes, specify the type of pollutants. | | |
| | Potential to generate fugitive emissions | | |
| | Potential to release gaseous pollutants, if yes, then specify | | |
| | Will the suggested activity have potential to release toxic gas from handling, transport, storage and its use? | | |
| | Any other emissions, specify | | |

Table 6: Generation of noise

| S.No | Information/Checklist confirmation | Yes/No | Provide explanation and supporting documents wherever applicable |
|---|---|---|---|
| | Will the suggested activity have potential to alter the ambient noise due to the following listed activities<br>Construction of project<br>Plant operations<br>Increase in traffic | | |
| | Will the suggested activity have potential to increase the risk of occupational noise hazard or cause disturbance to adjoining human settlements? | | |
| | Any other potential sources that may cause occupational hazard specify. | | |

Table 7: Risks of contamination of land or water from release of pollutants into the sewers, surface waters and groundwater

| S.No | Information/checklist confirmation | Yes/No | Provide explanation and supporting documents wherever applicable |
|---|---|---|---|
| | Located in potential erosion/landslide prone area | | |
| | Will project activities increase the sediment load in the<br>local water bodies? | | |
| | Potential to contaminate land and water due to handling, transport, storage of raw material/chemical or hazardous substances | | |
| | Discharge of sewage or other effluents to water or land | | |

| | | | |
|---|---|---|---|
| | (Expected mode and place of discharge) | | |
| | Will the suggested activity change on-site or downstream water flows (including increases or decreases in peak and flood flows, low flows through extraction diversion or containment of surface of ground water e.g. through dams, reservoirs, canals, levees, river basin developments, ground water extraction) or through other activities? | | |
| | Will the suggested activity affect water quality of waterways (e.g. through defuse water pollution from agricultural run off or other activities? | | |
| | Is there a risk that the suggested activity negatively affects water dynamics, river connectivity or the hydrological cycle in ways other than direct changes of water flows (e.g. water filtration and aquifer recharge, sedimentation)? Also consider reforestation activities as originators of such impacts. | | |
| | From any other sources, specify | | |

Table 8: Negative Impacts on Species

| S.No | Information/checklist confirmation | Yes/No | Details thereof (with<br>Approximate quantities /rates, wherever possible) with source of information data/ provide explanations,<br>Wherever applicable. |
|---|---|---|---|
| | Will the suggested activity result in negative impacts to any endemic, rare or threatened species; species that have been identified as significant through global, regional, national, or local laws, treaties, or processes; species with a narrow range? | | |

| | | | |
|---|---|---|---|
| | Does the suggested activity introduce or use potentially invasive, non-indigenous, species?<br><br>Will the suggested activity have negative impacts on other native species? | | |

Table 9: Pest Management

| S.No | Information/checklist confirmation | Yes/No | Details thereof (with<br><br>Approximate quantities /rates, wherever possible) with source of information data/ provide explanations,<br><br>Wherever applicable. |
|---|---|---|---|
| | Does the suggested activity use or promote the use of any substances listed under the Stockholm Convention on Persistent Organic Pollutants?<br><br>Will the suggested activity involve or promote the use of pesticides and/or fertilizers?<br><br>If pesticides/fertilizers are to be used, what pesticides or fertilizers will be used?<br><br>Are they a product classified by the World Health Organization as Classes IA, IB, or II?<br><br>Will the procurement of the pesticides, procurement of suitable protective and application equipment, and intended usage comply with the FAO International Code of Conduct on the Distribution and Use of Pesticides?<br><br>Has full consideration been given to the transport, storage, application, distribution, and disposal of the pesticides and fertilizer? | | |

| | | | |
|---|---|---|---|
| | Has full and due consideration been given to the potential impacts of that use of pesticides/fertilizers on the health of project executors and nearby communities? | | |

Table 10: Risk and disaster

| S.No | Information/checklist confirmation | Yes/No | Details thereof (with<br>Approximate quantities /rates, wherever possible) with source of information data/ provide explanations,<br>Wherever applicable. |
|---|---|---|---|
| | Activities/operations or processes leads to fire risk/ explosion/ electrocution and others. | | |
| | Risk of road accident | | |
| | Any other risk, specify | | |

Table 11: Information on Socio-economic environment

| S.No | Information/checklist confirmation | Yes/No | Provide explanation and supporting documents wherever applicable |
|---|---|---|---|
| | Will the suggested activity involve land acquisition? | | |
| | Access to livelihoods | | |

| | | | |
|---|---|---|---|
| | Will the suggested activity introduce restrictions on access to natural resources (e.g., watersheds or rivers, grazing areas, forestry, NWFP) or restrict the way natural resources are used, in ways that will impact livelihoods? This may be the result of new legal restrictions (e.g., on hunting) or law enforcement activities; creation or enforcement of new protected areas; demarcation of land boundaries, etc.<br><br>Does the suggested activity involve restriction of access to sacred sites of indigenous communities or other local communities' and/or places relevant for women's or men's religious or cultural practices? | | |
| | Cultural heritage<br><br>Is the suggested activity located in or near a site officially designated or proposed as a cultural heritage site (e.g. UNESCO World Cultural or Mixed Heritage Sites or Cultural Landscapes) or a nationally designated site for cultural heritage protection?<br><br>Does the suggested activity area harbor cultural resources such as tangible, movable or immovable cultural resources with archeological, historical, cultural, artistic, religious, spiritual or symbolic value for a national, people or community. This could include burial grounds, buildings, monuments or cultural landscapes.<br><br>Will the suggested activity involve excavation or movement of earth, flooding or physical environmental changes (e.g., as part of ecosystem restorations? Will this physical intervention affect known or unknown (buried) cultural resources?) | | |
| | Impacts on local culture due to construction<br><br>If construction takes place agriculture area, construction materials, waste, wastewater and surface runoff from construction sites, camps may enter rice or plantation nearby disturbed areas and cause loss or harm to plants, trees<br><br>Dust, noise, vibration from construction or interactions between workers with local people may cause nuisance and conflict between the workers and local community. In some cases, workers may also involved in "social evils" in the project areas such as | | |

| | | | |
|---|---|---|---|
| | gambling, drinking, drugging, etc. to have bad impacts on local people, particularly where ethnic minority groups present. | | |
| | Occupational health and safety<br>Will the suggested activity involve any risks related to transportation and loading of construction materials, working high above the ground or in canals where slops are unstable, machinery operations, electrical uses for office, camp and construction | | |
| | Community health and safety<br>If local people presence at or near construction site, they would be exposed to safety risks related to construction (e.g., loading and unloading of construction materials, excavated areas, fuel storage and usage, electrical use, machinery operations etc, adequacy of accommodation etc.). | | |
| | Participation and consultation<br>Does the project respect the rights of local communities with customary rights to lands and resources to free, prior, informed consent to interventions directly affecting their lands, territories or resources?<br>Does the project support traditional conservation initiatives and/or promote related enabling policies, legislation, and participation in broader processes? | | |
| | Vulnerability<br>Is there a risk that the project might negatively affect vulnerable groups in terms of material or non-material livelihood conditions or contribute to their discrimination or marginalisation (only issues not captured in any of the sections above)? | | |
| | Community conflicts<br>Is there a risk that the project would stir or exacerbate conflicts among communities, groups or individuals? Also consider dynamics of recent or expected migration including displaced people | | |

| | | | |
|---|---|---|---|
| | Identify and describe site-specific and type-specific issues, concerns, risks, potential impacts | | |

List of documents to be attached with this IESE form:

| | |
|---|---|
| 1 | Layout plan of the project |
| 2 | Summary of the project proposal |
| 3 | No objection certificate from various departments and others relevant stakeholders (applicable if EA is not required) |
| 4 | Environment Management Plan (applicable if EA is not required) |

Screening Conclusions.

i. Main environmental issues are:……..
ii. Permits/ clearance needed are:. ……..
iii. Main social issues are. ……
iv. Land acquisition and involuntary resettlement (permanent or temporary) if any;
v. Further assessment/ investigation needed and next step.
    a. Need for any special study:……..
    b. Preparation ESMP (main issue to be addressed by the ESMP):……..
    c. Any other requirements/ need/ issue etc:

Screening Tool Completed by: Screening Tool Reviewed by:

Signed: Signed:

Name: _____ Name: _____

Title and Date: _____ Title and Date: _____

## Annex III:Format for Environmental and Social Compliance Monitoring

Project Activity/Contract package:
Monitoring Officer:
Name: Mobile phone number email
Date reporting:

| | Environmental issues | Description of Mitigation Measures implemented | Evaluation<br>1=good;<br>0 = acceptable;<br>-1 = bad |
|---|---|---|---|
| 1 | Dust, smoke | | |
| 2 | Noise, vibration | | |
| 3 | Disturb vegetation cover, cut trees | | |
| 4 | Waste generation | | |

| | | | |
|---|---|---|---|
| 5 | Water pollution | | |
| 6 | Localized flooding | | |
| 7 | Traffic disturbance | | |
| 8 | Public health and safety | | |
| 9 | Damages or disrupt operations of existing infrastructure | | |
| 10 | Disturb Socio economic activities | | |
| 11 | Social impacts related to mobilization of workers to the site | | |
| 12 | Impacts on physical cultural objects | | |
| | Others (specify) | | |

Signature

Name and Designation

Name of the CA