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# BACKGROUND INFORMATION

## Partner country

Republic of Serbia

## Contracting authority

Municipality of Negotin

## Country background

In CB region water environments are experiencing serious threats to biodiversity and there is an urgent priority for the search of alternative techniques to promote fish biodiversity conservation and management. Danube river is the only river in CB region with natural population of sturgeon species. Six species of sturgeons lived in the Danube - beluga, starry sturgeon, Russian sturgeon, sterlet, Atlantic sturgeon and ship sturgeon. Today only four of these species remain - the Atlantic sturgeon and the sterlet have disappeared from the river waters. They are species that live in the sea and enter the rivers to multiply. An exception is made by the ship sturgeon who lives only in the river.

## Current situation in the sector

* With this aim, the present project was undertaken to assess the fish biodiversity within the river's areas and in particular sturgeon fish species. Bulgaria and Serbia are one of Europe’s biodiversity hotspots with approximately: 210 species and sub-species of fish in Bulgaria (without those in Black sea) 125 fishes in Serbia. This rich biological diversity is subject to the impacts of a large spectrum of threats as a result of human activity and natural processes occurring in the ecosystems. Anthropogenic threats to terrestrial systems include construction activities, infrastructure projects, resource extraction, agricultural intensification/extensification, illegal logging, environmental pollution, direct extermination/exploitation, genetic erosion, introduction of alien invasive species and climate change. These are the problems that the current project is focused on and aims at the resolving of them through establishment of a hatchery for sturgeon fish species, educational centre and implementation of complex of activities in the area of biodiversity protection. This way, the common border region will protect its nature heritage for the future generations.

## Related programmes and other donor activities

N/A

# OBJECTIVE, PURPOSE & EXPECTED RESULTS

## Overall objective

The overall objective of the project of which this contract will be a part is as follows:

The overall objective of the project is improvement and development of sturgeon biodiversity in the Danube River in Bulgaria and Serbia.

## Purpose

The purpose of this contract is as follows:

* Provision of services of creation of functional GIS system for the needs of Municipality of Negotin. Development of GIS system will include a computer system capable of integrating. storing, editing, analysing and displaying geographic information for the endangered river species in Negotin region

## Results to be achieved by the contractor

* Created GIS system fully functional for the use by Municipality of Negotin

# ASSUMPTIONS & RISKS

## Assumptions underlying the project

* Political processes such as elections or changes in structures and institutions in charge for rural development.
* Austerity measures due to crisis which will stop/significantly slow down innovative development initiatives.

## Risks

* GIS system not developed as per modern practices and on high level as required in the Terms of References.

# SCOPE OF THE WORK

## General

### Description of the assignment

Contractor will be responsible for development of GIS platform that will be used for monitoring the movements of endangered fish in the Danube River.

### Geographical area to be covered

Municipality of Negotin

### Target groups

Inhabitants of Municipality of Negotin

## Specific work

**Development of GIS desktop application**

Contractor should develop GIS application for the project all in accordance to the requirements and in constant communication with the Project Team and Contracting Authority.

The application should provide a wide range of functionalities for presentation and processing of GIS data. Application should be able to work with raster and vector layers – creation, configuration, 2D and 3D display. It also should enable functionalities for creation, presentation, manipulation, and processing of features of each vector layer. This set of functionalities should enable monitoring the movements of endangered fish in the Danube River.

Application should enable creation and storing of project files on the file system. Application also should provide general settings for created projects:

* Configuration of used spatial referent systems
* Configuration of different data services
* Configuration of cover data
* Configuration of navigational maps
* Configuration of road networks

Application should be easy to use, with simple and intuitive graphical user interface, with possibility of customizing and managing different panel layouts, and 2D and 3D data display.

Application should provide following collection of tools for the data analysis and processing:

* Shortest path finding
* Terrain profile analysis
* Optical visibility analysis
* Measurements
* Geoprocessing
* Raster data exporting
* Cartographic functions
* Georeferencing

Application should provide definition and customization of different styles for presentation of vector and raster layers.

**Creation and usage of GIS data**

GIS application should allow input of vector data as shapefiles and from a database. It should allow connection to Microsoft Data Access database, and possibility of writing, reading, editing, and deleting vector data layers from the database.

Application should work with following raster data formats: map, xml, tif, jpg, png, gif, bmp.

## Project management

### Responsible body

Contracting Authority- Municipality of Negotin

### Management structure

Contracting Authority nominated Project team for the needs of implementation of this contract.

### Facilities to be provided by the contracting authority and/or other parties

N/A

# LOGISTICS AND TIMING

## Location

Municipality of Negotin

## Start date & period of implementation of tasks

The intended start date is 23/06/2020 and the period of implementation of the contract will be 8 months from this date. Please see Articles 19.1 and 19.2 of the special conditions for the actual start date and period of implementation.

# REQUIREMENTS

## Staff

Note that civil servants and other staff of the public administration of the partner country, or of international/regional organisations based in the country, shall only be approved to work as experts if well justified. The justification should be submitted with the tender and shall include information on the added value the expert will bring as well as proof that the expert is seconded or on personal leave.

### Key experts

Key experts are defined and they must submit CVs and signed statements of exclusivity and availability.

All experts who have a crucial role in implementing the contract are referred to as key experts. The profiles of the key experts for this contract are as follows:

**Key expert 1: Team leader**

*Qualifications and skills:*

University degree in computer science with specialisation in GIS systems or similar.

*General professional experience:*

Minimum 3 years of experience working in the field implementation of this contract.

*Specific professional experience:*

Has provided services of under at least one contract considering development of GIS system.

**Key expert 2: Biologist**

Qualifications and skills

University degree in Biology with specialisation in river species or similar.

General professional experience

Minimum 3 years of experience working in field of examining the river species.

Specific professional experience

Has at least 2 publications related to the river species.

All experts must be independent and free from conflicts of interest in the responsibilities they take on.

### Other experts, support staff & backstopping

CVs for experts other than the key experts should not be submitted in the tender but the tenderer will have to demonstrate in their offer that they have access to experts with the required profiles. The contractor shall select and hire other experts as required according to the needs. The selection procedures used by the contractor to select these other experts shall be transparent, and shall be based on pre-defined criteria, including professional qualifications, language skills and work experience.

The costs for backstopping and support staff, as needed, are considered to be included in the tenderer's financial offer.

## Office accommodation

Office accommodation for each expert working on the contract is to be provided by the contractor.

## Facilities to be provided by the contractor

The contractor shall ensure that experts are adequately supported and equipped. In particular it must ensure that there is sufficient administrative, secretarial and interpreting provision to enable experts to concentrate on their primary responsibilities. It must also transfer funds as necessary to support their work under the contract and to ensure that its employees are paid regularly and in a timely fashion.

## Equipment

**No** equipment is to be purchased on behalf of the contracting authority / partner country as part of this service contract or transferred to the contracting authority / partner country at the end of this contract. Any equipment related to this contract which is to be acquired by the partner country must be purchased by means of a separate supply tender procedure.

# REPORTS

## Reporting requirements

The contractor will submit the following reports in English in one original:

* **Interim Report 01** of maximum 12 pages to be produced after 2nd month from the start of implementation. In the report the contractor shall describe e.g. initial findings, progress in collecting data, any difficulties encountered or expected in addition to the work programme and staff travel. The contractor should proceed with his/her work unless the contracting authority sends comments on the inception report.
* **Interim Report 02** of maximum 12 pages to be produced after 5th month from the start of implementation. In the report the contractor shall describe e.g. initial findings, progress in collecting data, any difficulties encountered or expected in addition to the work programme and staff travel. The contractor should proceed with his/her work unless the contracting authority sends comments on the inception report.
* **Final report** to be sent upon provision of services fully as presented in Organisation & Methodology provided by the offer with which contract is signed (if such happens). Contractor will need to provide description of provided services and final output.

All the report should be submitted with the appropriate invoices as specified in the Draft Contract.

## Submission and approval of reports

The report referred to above must be submitted to the project manager identified in the contract. The project manager is responsible for approving the reports.

# MONITORING AND EVALUATION

## Definition of indicators

Fully provided functional GIS system as per Terms of Reference.

## Special requirements

N/A