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Environmental Protection of International River Basins Project

Contract No. 2011/279-666



A project implemented by a Consortium
led by Hulla & Co. Human Dynamics KG

Terms of Reference

Investigation of illegal discharges of waste water in Carpathian National Nature Park as a major pressure on the ecological status of the Upper Prut pilot river basin in the territory of Ukraine

I. Background and Objectives

The EPIRB project targets the improvement of water quality in the trans-boundary river basins of the wider Black Sea region and Belarus. It supports the move towards modern management tools and compliance of the EU Water Framework Directive (WFD) by building capacities, learning-by-doing, and through the development and implementation of River Basin Management Plans for selected pilot river basins according to the requirements of WFD.

The object of the assignment is to investigate the impact of waste water as a major pressure on the ecological status (especially illegal discharges of the non-treated waste water in protected areas) in the Upper Prut River basin in the territory of Ukraine and to identify a detailed programme of measures to address the problem and to include it in the Upper Prut River Basin Management Plan. The problem for the Beneficiary is that there are no treatment works or sewerage systems and in many cases sewage is discharged untreated or into basic soak ways. This is a critical problem for the hotels and guesthouses in the Park. There needs to be a strategy to introduce package plants and this assignment will contribute to the implementation of EPIRB project Activity 2.6 – ‘Implementation of selected measures’.

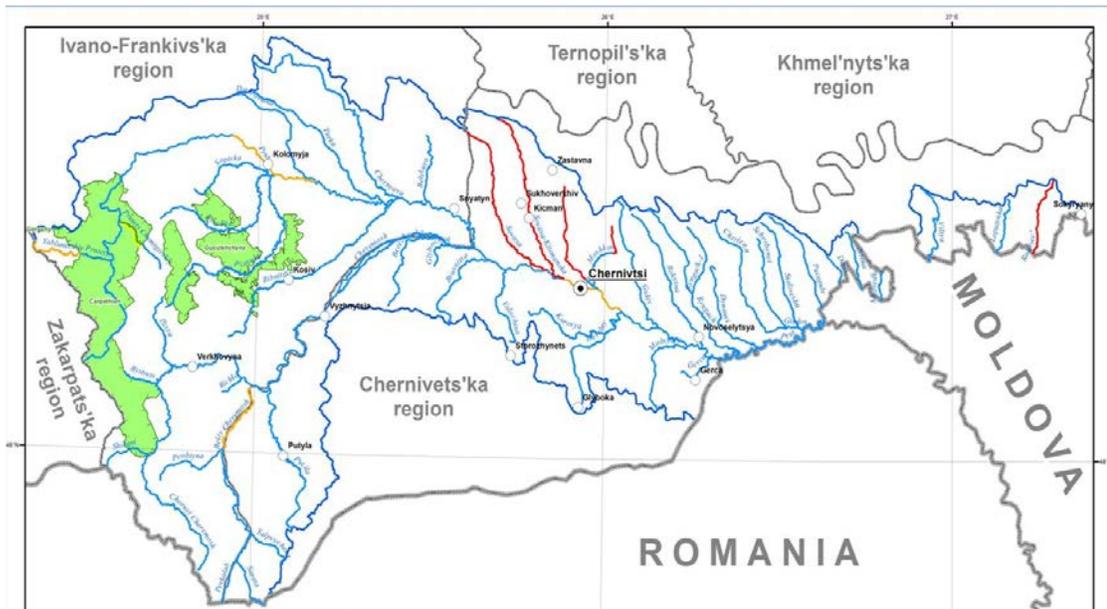
EPIRB project has undertaken both groundwater and surface water Field Surveys in Upper Prut River Basin in 2013 and 2014. The results has enable the project establish ‘reference conditions’ for the various water body types and determine ‘good ecological status’ (WFD 2000/60/EC) of the water bodies within the Natural Parks. A major pressure that has been identified is tourism, where resorts near/in the Natural Parks are discharging waste water and solid wastes into the River Prut, clogging of river channels and worsening of the waters ecological status. In order to maintain the Prut’s good ecological status more attention to control and policing of these discharges is required by the regulatory authority.

The upper part of the Prut River basin within the Carpathians is largely unsuitable for economic activity. *The biggest and most important is the Carpathian National Nature Park.* It was established in 1980 and covers 50,5 thousand ha in Ivano-Frankovsk Region. It is the first NNP established in the territory of Ukraine and one of the largest and most famous NNP in Ukraine. In the park operate dozens of recreation centers, several health centers, and several sports centers and summer camps. Through park territory pass most climbing routes to Mt Hoverla (2064 m) on the border of Zakarpattia Region and the Carpathian Biosphere Reserve. The park administration is located in Yaremche. The park is under the management of Ministry of Environment and Nature Resources.

In addition, in the Prut basin in Ukraine there are a number of sanctuaries, natural reserves, etc. For example, Chernovtsy Regional Nature Park includes the botanical nature monument of national importance Tisovy Ravine, where the European yew conifer, listed in the Red Book of Ukraine, is common.

In accordance with the Law ‘On Nature Reserve Fund’ of Ukraine, one of the objectives of establishing natural parks, regardless national or regional, is recreation. This helps to ensure that natural parks are actually widely

used in recreation and tourism, which exerts certain pressure on water and environmental systems of the Prut basin.



Overview map of the Upper Prut River basin (Ukraine)

The EU Water Framework Directive (WFD) requires that a Programme of measures for improving water quality be developed for each basin, and that in this process, a register of special protected areas be developed as well. The WFD term 'protected areas' is much more inclusive than the traditional notion of national parks, reserves, etc. This register must contain:

- areas designated for the abstraction of drinking water for human consumption;
- areas designated for the protection of economically significant aquatic species;
- bodies of water designated as recreational areas and bathing areas;
- nutrient-sensitive areas, including nitrate vulnerable zones with high demand for protection of water and soil from agricultural pollution (under Nitrates Directive 91/676/EEC), and areas with special requirements for municipal waste water treatment (under the Directive 91/271/EEC concerning urban waste water treatment (UWWTD));
- areas designated for the protection of habitats or species where the maintenance or improvement of the status of water is an important factor in their protection.

The main objective: Maintenance of the 'good ecological status' of the protected area of Upper Prut River Basin via investigation of the extent and impact of untreated domestic and commercial waste water to support the development and operation of Upper Prut ecological monitoring programme.

Beneficiary and recipients:

Beneficiary: Ministry of Ecology and Natural Resources of Ukraine (MENR).

Recipients: Administration of the Carpathian National Nature Park (Ministry of Ecology and Natural Resources), Prut River Basin authority (State Water Agency of Ukraine), local authorities, local communities, local business (tourism (green tourism), recreation etc.), NGOs.

II. Scope of Work and Deliverables

The major steps and deliverables are described below:

Deliverable 1: Inception report - outlining contractor's appreciation and implementation methodology

Deliverable 2: Design and reporting of a detailed investigation of the extent and impact of untreated waste water, particularly from the tourism industry, in the Carpathian National Nature Park, lying in the Upper Prut pilot basin.

The consultant will plan and organize a wide field survey in Carpathian National Nature Park (see map) and contributing basin, which potentially is under pressure from human activities (recreation areas, camp sites, holiday homes, restaurants) and for which no information about pressures, first of all about unlicensed discharges. The survey will be undertaken by accredited laboratory and will include physical-chemical parameters at the selected points. The consultant will undertake a comprehensive assessment of the samples and present the results to the MENR, the Nature Park Directorate and local authorities.

Deliverable 3: Preparation of waste water treatment and control strategy for the Upper Prut and Carpathian National Nature Park

The contractor should prepare a detailed analysis of the options for municipal waste water treatment, including modern and inexpensive available treatment techniques for camp sites and small hotels. The contractor should also undertake a review of the current regulatory regime and means of its improvement and efficiency.

It should be provided at least one public consultation meeting in the CNNP Directorate with all interested local communities, local authorities and NGOs.

Deliverable 4: Final Report to include a summary of activities and lessons learnt.

III. Schedule and Implementation Modality

Duration of the assignment is 7 months. The expected commencement date for implementation of the assignment is March, 2015, and the completion date – September, 2015. The assignment is divided into three phases with the following general schedule:

Investigation of waste water discharges as a major pressure in the Upper Prut pilot river basin (Ukraine)	2015						
	Mar	Apr	May	Jun	Jul	Aug	Sep
Deliverable 1: Inception report - outlining contractor's appreciation and implementation methodology							
Deliverable 2: Design and reporting of a detailed investigation of the extent and impact of untreated municipal waste water, particularly from the tourism industry, in the Carpathian National Nature Park, lying in the Upper Prut pilot basin							
Deliverable 3: Preparation of waste water treatment and control strategy for the Upper Prut and Carpathian National Nature Park Final report							
Deliverable 4: Final Report to include a summary of activities and lessons learnt.							

The approximate schedule and description of the deliverables for each Phase is given in the table below:

Summary of the work schedule and deliverables for the Prut River Basin in Ukraine

Deliverable	Max. No. of pages excl. Appendices	Language of deliverable	Start date	Due date for draft report	Finalization
Deliverable- 1: Inception report - outlining contractor's appreciation and implementation methodology	10	English	02 Mar 15	26 Mar 15	31 Mar 15
Deliverable 2: Design and reporting of a detailed investigation of the extent and impact of untreated municipal waste water, particularly from the tourism industry, in the Carpathian National Nature Park, lying in the Upper Prut pilot basin.	30	Ukraine / English	01 Apr 15	25 June 15	30 June 15
Deliverable 3: Preparation of waste water treatment and control strategy for the Upper Prut and Carpathian National Nature Park.	40	Ukraine/ English	15 June 15	17 Aug 15	31 Aug 15
Deliverable 4: Final Report to include a summary of activities and lessons learnt.	45	Ukraine/ English	01 Sep 15	21 Sep 15	30 Sep 15

The draft deliverables reviewed by the beneficiary and the project team members and final approval of deliverables will be given by the EPIRB Team Leader. Payments shall be made on approval of deliverables and divided into four (4) tranches given below:

Tranche 1: *10% on acceptance of inception report;*

Tranche 2: *30% on acceptance of Deliverable 2;*

Tranche 3: *30% on acceptance of Deliverable 3;*

Tranche 4: *30% on acceptance of Deliverable 4.*

Drafting, reporting and implementation of above deliverables will be coordinated, advised and monitored by the project team, consisting of the Team Leader, respective River Basin Management Expert and the project Key and Non-key experts. In addition, the target and other beneficiary institutions, as well as members of the National Coordination Committee (NCC) and the Prut Basin Management Authority will take an active part in collecting data, reviewing of deliverables and final report.

IV. Qualifications and requirements to the service provider/contractor

- Knowledge of EU Directives.
- Experience in waste water treatment assessment and techniques
- Demonstrated knowledge of Water Framework and Urban Waste Water Directives principles and experience of implementing these principles in the country/region
- Existence of qualified staff able to fulfill above mentioned tasks and demonstrated commitment to involve other national/international professional consultants

V. Detailed budget proposed

The assignment shall be implemented by a company or consortia of companies that are NOT representing the project beneficiaries.

The activities will be closely coordinated, assisted and monitored by the EPIRB project team members, respective RBM Expert and the project director. In addition, the target and other beneficiary institutions, as well as members of the National Coordination Councils might take active part in the actions as well.