UNITED NATIONS DEVELOPMENT PROGRAMME

PROJECT DOCUMENT

Republic of Moldova

Project Title: Supporting the Moldovan authorities in the sustainable management of the Dniester River

Project Number: 00139217

Implementing Partner: United Nations Development Program – Republic of Moldova (UNDP)

Start Date: 23 August 2022 **End Date:** 22 August 2026 PAC **Meeting date:** 2 August 2022

Brief Description

Sustainable management of water resources in accordance with the principle of integrated water management is the priority for Moldova. For further development of water policy and improvement of regulatory framework, the Ministry of Environment (MoE), with the support of its subordinate institutions, is responsible for ensuring ongoing dialogue with neighboring countries on the integrated management of transboundary water resources, with the ultimate goal to ensure amount and quality and quantity of waters needed for both sustainable socio-economic development and healthy environment.

In the process of improvement of national regulatory framework, harmonization of environmental legislation with the provisions of European Union (EU) directives, national environmental protection system faces many constraints, particularly, related to outdated standards, normative acts, capacity of responsible institutions, shortage of qualified staff in the government sectoral institutes, etc.

The importance of integrated management of the Dniester River is indisputable for the Republic of Moldova. It is the largest river in the Republic of Moldova, covering 70% of the country's water consumption needs, thus being considered a strategic surface water resource for both environmental and socio-economic security of the country.

For the joint Moldovan-Ukrainian management of the Dniester River, a topic of major importance for Moldova is the impact of the operation of the Dniester Hydropower Complex (HPC) on the Moldova's territory. In the frameworks of project "Study of social and environmental impact assessment of the Dniester Hydropower Complex" funded by Swedish Embassy and implemented by UNDP in 2018-2021, there was clearly shown its negative impact on the environment downstream.

According to Water Law no. 272/ 2011, river basin district management plans (RBDMP) are being developed for 6-years cycle. It shall be mentioned that the Ukrainian side is also concerned with the development of the Dniester River Basin Management Plan (RBMP) for the years 2025-2030. Important methodological aspects were harmonized between countries' experts and institutions, and joint Strategic Action Program had been elaborated with assistance of the GEF funded project. The Strategic Action Program (SAP) is one of the key strategic documents of the Commission on Sustainable Use and Protection of the Dniester River Basin. It is based on the findings of the Transboundary Diagnostic Analysis (TDA) for the Dniester River Basin. Both documents have been developed according to the methodology agreed by the two countries and have been extensively consulted. The documents contribute to the Dniester River basin management planning at the national level, as well as support implementation of international commitments to develop joint plans for the transboundary basins. On March 31, 2021, there was signed a Joint Statement on the approval of the Strategic Action Program for the Dniester River Basin for 2021 between the Ministry of Agriculture, Regional Development and Environment of the

Republic of Moldova and the Ministry of Environmental Protection and Natural Resources of Ukraine.

Along with attempts to solve the cross-border aspect of the Dniester River management on the platform of the Dniester Commission, currently, environmental institutions are in an extensive process of functional analysis aimed at streamlining the structure, functions, and capacities in the field of integrated management of water resources.

The strategy of the project "Support to the Moldovan authorities for the sustainable management of the Dniester River" is to improve environmental and social conditions in the Dniester River Basin District through enhanced management of water resources on the basis of updated regulatory framework, comprehensive and reliable river basin management planning, improved water management institutional capacities and implementation of practical environmental activities that would improve the ecological status of the Dniester River, identified as part of the Dniester Impact Study (2021).

The Project consists of 4 (four) Components as follows:

Component 1. Enhancement of water related regulatory framework
Component 2. Elaboration of the 2nd Management Plan for the Dniester River Basin District
Component 3. Support provided to Moldovan water management authorities in sustainable management of Dniester River both at national and transboundary/ international levels
Component 4. Implementation of the on-the-ground activities to improve the current ecological conditions of the Dniester River

The Overall Objective of the 4,5 -years project is to increase the capacity of the Moldovan Government to sustainably manage the Dniester River basin at the national and transboundary levels, including:

- To ensure that Moldova has sufficient regulatory framework for the sustainable river management based on the basin wide approach supported by the WFD provisions,
- To provide the Moldova Government for comprehensive and realistic Management Plan for the Dniester River Basin developed in compliance with the WFD,
- To provide continuous support for enhancement of capacities of national authorities responsible for water management, as well as the Moldovan representatives under joint Moldovan and Ukrainian bodies tasked with cross-border management of the Dniester River,
- To improve social, economic, and environmental conditions of the Dniester River.

<table>
<tr><td rowspan="6">Contributing Outcome (UNDAF/CPD):

Outcome 3: The people of Moldova, in particular the most vulnerable, benefit from enhanced environmental governance, energy security, sustainable management of natural resources, and climate and disaster resilient development

Indicator 3.2 Improved national capacities for environmentally sound management practices for ecosystems, waste, and chemicals</td><td>Total resources required:</td><td colspan="2">1,798,921 USD</td></tr>
<tr><td rowspan="4">Total resources allocated:</td><td colspan="2">1,798,921 USD</td></tr>
<tr><td>UNDP TRAC:</td><td>n/a</td></tr>
<tr><td>Donor:</td><td>1,798,921 USD</td></tr>
<tr><td>Government:</td><td>n/a</td></tr>
<tr><td>In-kind:</td><td>n/a</td></tr>
<tr><td>Unfunded:</td><td></td><td></td></tr>
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Agreed by (signatures):

Embassy of Sweden to Moldova	UNDP Moldova
Print Name:	Print Name: Dima Al-Khatib
Date: 2022. 08. 23	Date: 23/8/2022

List of Acronyms

AAM	Agency Apele Moldovei
ADA	Austrian Development Agency
AWB	Artificial Water Body
AWP	Annual Work Plan
DD	Detailed Design
DIM	Direct Implementation Modality
EA	Environmental Agency
EU	European Union
EC	European Commission
FRR	Financial Regulation and Rules
GD	Government Decision
GEF	Global Environment Facility
GEP	Good Ecological Potential
GES	Good Ecological Status
GIS	Geographic Information System
HMWB	Heavily Modified Water Body
HPC	Hydropower Complex
HPP	Hydropower Plant
HPS	Hydropower Station
IC	Individual Contract
ICF	Internal Control Framework
IEP	Inspectorate for Environmental Protection
LPA	Local Public Authority
LPAC	Local Project Appraisal Committee
MEP	Maximum Ecological Potential
MoE	Ministry of Environment
M&E	Monitoring and Evaluation
MoF	Ministry of Finance
MoFAEI	Ministry of Foreign Affairs and European Integration
MoH	Ministry of Health
MoIRD	Ministry of Infrastructure and Regional Development
NGO	Non-governmental Organization
OAI	Office of Audit and Investigations
PB	Project Board
PM	Project Manager
PIU	Project Implementation Unit
PoM	Programme of Measures
POPP	Programme and Operations Policies and Procedures
RBD	River Basin District
RBDMP	River Basin District Management Plan
RBMP	River Basin Management Plan
RIA	Regulatory Impact Analysis
RLA	Reimbursable Loan Agreement
RRF	Results and Resource framework
SAP	Strategic Action Programme
SBAA	Standard Basic Assistance Agreement
SC	State Chancellary
SDC	Swiss Agency for Development and Cooperation
SEA	Strategic Environmental Assessment
SHS	State Hydro-meteorological Service
SGP	Small Grants Programme
TDA	Transboundary Diagnostic Analysis
ToR	Terms of Reference
UNDAF	United Nations Development Assistance Framework

UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations International Children's Emergency Fund
UNSMS	United Nations Security Management System
WFD	Water Framework Directive
WWTP	Wastewater Treatment Plant

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I. DEVELOPMENT CHALLENGE

Sustainable management of water resources in accordance with the principle of integrated water management is the priority for the Moldovan Government, as per the commitments of the Moldova -EU Association Agreement. In addition to further development of water policy and improvement of regulatory framework, the MoE, with the support of its subordinate institutions, is responsible for ensuring ongoing dialogue with neighboring countries on the integrated management of transboundary water resources, with the ultimate goal to ensure the quantity and quality of waters needed for both sustainable socio-economic development and healthy environment. In relation to improvement of national regulatory framework, harmonization of environmental legislation with the provisions of EU directives, although a certain support has been provided by various development partners, the national environmental protection system still faces constraints, particularly, related to outdated standards and improvement of policy, legal and regulatory frameworks.

The importance of integrated management of the Dniester River is indisputable for the Republic of Moldova. It is the largest river in the Republic of Moldova, covering 70% of the country's water consumption needs, thus being considered a strategic surface water resource for both environmental and socio-economic security of the country.

Pollution of water bodies, including in the Dniester River basin presents a significant threat to Moldova's development. The poor quality of water sources - both surface and shallow groundwater - seriously compromises the provision of safe drinking water, affecting human health and economic productivity. Almost 44% of the country's population does not have access to clean drinking water. According to the National Water Supply and Sanitation Strategy, approximately 54% of the water samples taken from schools are exceeded by the maximum permitted concentration of chemical and sanitary parameters, while 20% of the samples do not meet microbiological safety parameters. The situation is especially unfavorable in rural areas, where two thirds of rural population rely on shallow polluted groundwater as their main source of drinking water, and access to piped drinking water systems with adequate treatment is low. High pollution stems from point sources of untreated wastewater, landfills, as well as from diffuse sources such as agriculture, livestock, and poor sanitation in rural areas. With collection rates of wastewater in urban areas already being low, the treatment rate is even lower. The Dniester right-side tributaries contain large amounts of minerals, ammonium, nitrites, oil products, and detergents. Diffuse pollution from fertilizers, manure disposal, and lack of rural sanitation has affected nitrate levels and microbiological contamination of shallow groundwater. Approximately 80% percent of sampled Moldovan wells do not comply with national drinking water standards; they show high levels of ammonium, nitrates, and microbiological pollutants, with the highest levels of nitrates occurring mainly in the north of the country[1].

However, the conditions of the Dniester River itself, particularly, water availability influenced by hydro-morphological alterations, including in its Ukrainian stretch is in the focus of the Moldovan and Ukrainian authorities since the 1990s, when the Treaty (2012) between the Government of the Republic of Moldova and the Cabinet of Ministers of Ukraine on joint management and protection of transboundary waters was signed. Currently, discussion and coordination of activities on the Dniester River, is carried out including through the platform of the Dniester Commission, established on the basis of above-mentioned agreement.

[1] Moldova Water Security Diagnostic and Future Outlook. The World Bank Group, International Bank for Reconstruction and Development. 2020

For the joint Moldovan-Ukrainian management of the Dniester River, a topic of major importance for Moldova is the impact of the operation of the Dniester HPC on the Moldova's territory especially in terms of existing plan to expand the HPC capacities. In the frameworks of project "Study of social and environmental impact assessment of the Dniester Hydropower Complex" funded by Swedish Embassy and implemented by UNDP in 2018-2021, there was clearly shown its negative impact on the environment as well as identified other unfavorable consequences of the HPC operation downstream.

Results of the study were presented at the meeting of the Moldovan-Ukrainian Dniester Commission on October 28, 2021 and discussed with the Ukrainian Delegation. These results in terms of identified impact on environment as well as data provided by the project in terms of state border and land ownership will also further continue to support Moldovan Delegation in the negotiation process as regards the Regulation on Operation of the Dniester HPC.

Sustainable integrated management of the Dniester River depends on strong enabling environment – policies, laws and plans that put in place "rules of the game" for water management; a clear, robust and comprehensive institutional framework – for water management using the basin as the basic management unit while decentralizing decision making; effective use of available management and technical instruments – use of assessments, data and instruments for water allocation and pollution control to help decision makers select better choices, and sound investments in water infrastructure with adequate financing available – to deliver progress in meeting water demand and needs for flood management, drought resilience, irrigation, energy security and ecosystem services[2].

The Republic of Moldova, as an EU partner country, has partly harmonized its national water related legislation with the EU's WFD. The main aim of this exercise was to ensure the application of the principle of integrated water resources management by managing water resources based on the river basin approach implying better water protection by preventing pollution and other damage to water and ensuring its good status. According to Water Law, RBDMPs are being developed for 6-years cycle. It shall be mentioned that the Ukrainian side is also concerned with the development of the RBDMP, and currently, the 1st Management Plan for the Ukrainian part of the Dniester River Basin for the years 2025-2030 is in the process of development

Along with attempts to solve the cross-border aspect of the Dniester River management on the platform of the Dniester Commission, currently, environmental institutions are in an extensive process of functional analysis aimed at streamlining the structure, functions, and capacities of central authorities, particularly, in the field of water in order to achieve integrated management of water resources.

II. STRATEGY

Theory of change

IF

Moldova has an adequate regulatory framework for the sustainable river management,

[2] Smith M., Clausen T.J. Integrated Water Resource Management. A new way forward. A Discussion Paper of the World Water Council Task Force on IWRM. 2014

Moldovan Government has a comprehensive and realistic Management Plan for the Nistru River Basin, updated for the next management cycle in compliance with the Water Framework Directive

National authorities have an enhanced capacity to perform water quality monitoring and to implement Water Framework Directive, to perform cross-border management of the Dniester River

THEN

Ecological, social, and economic conditions of the Dniester River are improved

BECAUSE

Governmental institutions are performing their roles in compliance with legislation.

The strategy of the project "*Support to the Moldovan authorities for the sustainable management of the Dniester River*" is to improve environmental and social conditions in the Dniester River Basin District (RBD) through enhanced management of water resources on the basis of updated regulatory framework, comprehensive and reliable river basin management planning, improved water management institutional capacities and practical environmental activities on the Dniester River.

The Project consists of 4 (four) Components as follows:

Component 1. Enhancement of water related regulatory framework

Component 2. Elaboration of the 2nd Management Plan for the Dniester River Basin District

Component 3 Support provided to Moldovan water management authorities in sustainable management of Dniester River, both at national and transboundary / international levels

Component 4. Implementation of the on-the-ground activities to improve current ecological conditions of the Dniester River

The ***Overall Objective*** of the project is to increase the capacity of the Moldovan Government to sustainably manage the Dniester River basin, both at national and transboundary levels.

The **Specific Objectives** are:

1. To ensure that Moldova has an adequate regulatory framework for the sustainable river management on the basis of basin wide approach.
2. To provide the Moldovan Government with a comprehensive and realistic Management Plan for the Dniester River Basin District, updated for the next management cycle in compliance with the WFD.
3. To provide continuous support for enhancement of capacities of national authorities responsible for water management, as well as Moldovan representatives under joint Moldovan and Ukrainian bodies tasked with cross-border management of the Dniester River
4. Improvement of ecological conditions of the Dniester River.

The importance of the project implementation is substantiated by the fact that the Dniester River and its tributaries are the main source of water supply for agriculture, industry and the two million inhabitants living in the Moldovan part of the Dniester River Basin, including the Transnistrian region. However, Dniester River and its tributaries are facing severe environmental and social problems due to impacts associated with the water flow regime and water quality, including caused by HPC functioning. Wastewaters discharged from the dilapidated and inefficient WWTPs situated along both banks contaminate the river, the self-cleaning capacity of which is weakening due to volume of the flowing water, poor oxygen balance and structure of riverbed. Therefore, appropriate management of the Dniester RBD relying on strong implementing institutions, renovated infrastructure, close inter-sectoral cooperation, and effective public participation are crucial for supporting sustainable development in the district.

It shall be mentioned that the "Dniester Hydro Power Complex Social and Environmental Impact Study" project was implemented in 2018-2021 2021 by the UNDP Moldova, at the request of the MoE with the financial support of the Embassy of Sweden in the Republic of Moldova. The objective of the project was carrying out the Study of environmental and socio-economic impact of the Dniester Hydropower Complex operation on the territory of Moldova and enhancing capacities of the Moldovan Delegation at the negotiations with Ukraine as regards HPC operation. The Study itself was divided into two parts as follows: the 1st one addressed impact of operation and focused on the analysis of river hydrology and hydro-morphology, water quality, hydrogeology, hydrobiology, water infrastructure, social and economic impacts; the 2nd part addressed damages caused by the Dniester HPC operation, estimation of their direct and indirect costs, including disruption and loss of ecosystem services. This Study provides for credible, unbiased, scientifically argued information and data linked to the functioning of the Dniester HPC which were described in numerous thematic reports.

The main results and findings of the "Dniester Hydro Power Complex Social and Environmental Impact Study" project, particularly, methodology for estimating minimum flows and spring ecological water releases, impact on hydrology and river hydro-morphology, impact on hydro-biodiversity and estimation of damage due to loss of ecosystem services were also presented at the meeting of the Moldo-Ukrainian Dniester River Commission held on 28-29 October 2021 in town of Orhei, Moldova. Yet, these results and findings need further promotion among key national stakeholders, including with the purpose to consolidate and enhance position of Moldovan Delegation at the negotiations with Ukraine as regards operation of the Dniester HPC.

Along with above mentioned objectives to be achieved, implementation of the Project shall also contribute to improvement of the

- transboundary cooperation between Moldova and Ukraine on the Dniester Commission platform and other existing cooperation possibilities
- cooperation between the experts, institutions, and non-governmental sectors from Moldova and Transnistrian region of the country in the field of water resource management

The Project will be implemented by the UNDP hired Project Implementation Unit under auspices of the Ministry of Environment and supported by Local Consultant/s (with individuals or firm) and in close cooperation with experts from Moldovan state institutions and non-governmental sector

from the Transnistrian region with the financial support from Sweden Embassy and technical support from the Agency Apele Moldovei (AAM) as an Implementing Partner.

Gender mainstreaming is an indispensable part of the project and is defined by the United Nations Economic and Social Council as *"a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of the policies and programs in all political, economic and social spheres so that women and men benefit equally, and inequality is not perpetuated*". The project team will also intend to promote the participation of women in consultation and decision-making process and will address gender inequalities in terms of access to green job related to stuff to be produced under the Project and trainings planned as these have a crucial impact on the success and sustainability of every development intervention. During Project implementation, gender analysis and statistics will be applied and if necessary, the gender empowerment needs will be addressed.

Human rights-based approach (HRBA)

Human rights are the 1st UNDP Programming Principles. The human rights-based approach (HRBA) seeking to analyses inequalities which lie at the heart of development problems and redress discriminatory practices and unjust distributions of power that impede development progress and often result in groups of people being left behind, will be used as a conceptual framework for the process of human development that is normatively based on international human rights standards and operationally directed to promoting and protecting human rights. It seeks.

Under the HRBA, project developments will be anchored in a system of rights and corresponding obligations established by international laws respected by Moldova, including all civil, cultural, economic, political and social rights, and the right to development. HRBA requires human rights principles (universality, indivisibility, equality and non-discrimination, participation, accountability) to guide project development, and focus on developing the capacities of both 'duty-bearers' to meet their obligations, and 'rights-holders' to claim their rights.

Accordingly, the project will take into account relevant aspects for ensuring human rights, which may include: identification of duty bearers and rights holders across different project areas; ongoing monitoring and evaluation of the project or its adherence to human rights principles; assessment of the developmental and human rights impact of the project. The project manager and individual task managers will be responsible for this matter. In the course of project implementation, training/ briefing shall be organized for the relevant project personnel, in particular before the start of the implementation of a particular project area. In addition, transparent and public events will be held periodically, including meetings, discussions, consultations and presentations with a wide range of stakeholders, including affected parties, if any, as well as non-government sector and general public.

Conflict sensitivity is about bringing awareness of conflict dynamics to entities that deliver development assistance, and support to political processes, with the goal to minimize the risk that those activities worsen conflict dynamics. It is a minimum requirement for the UN, aligned with the principle of "Do No Harm", and that lays the foundations for activities that sustain peace and further sustainable development, with the promotion, protection and fulfillment of human rights at their core.

The conflict sensitivity issues during the current project set-up and implementation will involve project officers, which will design and implement project activities in the context to identify guiding principles, good practices and practical considerations to adopt conflict sensitive, peacebuilding and sustaining peace approaches within their activities in accordance with their mandates and other project partners to draw on the UN approach to conflict sensitivity and peacebuilding to inform their own work, policies and processes.

Respectively, the project officers will be instructed and/ or trained to understand and analyse the peace and conflict context of the project activities; adapt activities accordingly and manage risk interactions. Different UN resources can be triggered to increase project staff for better conflict prevention and risk management, as different guidelines and best practices [3,4]. Thus, the project managers will ensure activities continue to be relevant, appropriate, timely and realistic, will manage conflict risks and leverage opportunities to contribute to building and sustaining peace

UNDP plays a significant role in the United Nations' global effort to combat fraud and corruption, by supporting countries, including Moldova, in strengthening capacity and framework to prevent fraud and corruption. As UNDP has zero tolerance for fraud and corruption, the UNDP staff members, non- staff personnel, vendors, implementing partners and responsible parties will not be engaged in fraud or corruption.

Since the project aims to contribute to the improvement of environment in the Dniester River basin, bringing national regulatory frameworks to compliance with the European one and increasing the capacity of national institutions for transboundary and integral water resources management, the project as a whole does not have significant motives for the development of corruption and fraud. However, during the implementation of the project, special attention will be paid to this issue, primarily, to prevent such undesirable cases what is envisaged to be organized through project management. First, the persons and organizations engaging in the project will have appropriate clauses in their contractual obligations. Relevant instructions will be issues, as well as information on the UNDP policy on fraud and corruption, including for partner state organizations that will participate in the project, will be disseminated.

The project manager following the relevant UNDP documents and guidelines[5, 6,7] related to the prevention of corruption will regularly monitor and report on the status of this issue. In addition, the following measures will be implemented, such as: fraud awareness, prevention, and management of risk of fraud and corruption, internal control system, and will be also applied best practices and adhered standards and codes of conduct.

III. PROJECT RESULTS AND PARNERSHIPS

These are the following outcomes to be achieved and outputs produced under the Project Components:

COMPONENT 1. Enhancement of water related regulatory framework

[3] Good Practice Note: Conflict Sensitivity, Peacebuilding and Sustaining Peace,
[4] Conducting a Conflict and Development Analysis, UN DG, 2016
[5] UN Guide for Anti-Corruption Policy, 2003
[6] Anti-Corruption Practice Note, 2004
[7] UNDP Policy against Fraud and other Corrupt Practices. 2017

Outcome 1. Better management and protection of water towards prevention deterioration and enhancement status of aquatic ecosystems

Output 1. National water related regulatory framework towards compliance with the EU WFD-is developed, consulted and handed over to the relevant state institution for adoption / approval.

COMPONENT 2. Elaboration of 2nd Management Plan for the Dniester River Basin District

Outcome 2. Water quality improvements are achieved through a basin wide approach to water management

Output 2. The 2nd Management Plan for the Dniester River Basin District is elaborated in accordance with the EU WFD and pertaining national regulatory framework

COMPONENT 3 Support provided to the water management authorities in sustainable management of Dniester River resources at national and international levels

Outcome 3. Improved transboundary cooperation on joint management of the Dniester River basin

Output 3. National water authorities are capacitated to participate in the activities of the Commission for the Sustainable Use and Protection of the Dniester River (Dniester Commission)

Outcome 4. Better management of the Dniester HPC in view of social and environmental needs downstream

Output 4. Group for negotiating the Agreement on the Functioning of the Dniester HPC is supported by relevant expertise, trainings, negotiating skills

Outcome 5. Capacities of the AAM as a key national water management institution enhanced

Output 5. The responsibilities, functions and staff structure of AAM are adjusted to comply with integrated water management needs

COMPONENT 4 Implementation of activities to improve current ecological conditions of the Dniester River

Outcome 6 Capacity Building for Transboundary Water Quality Monitoring

Output 6: Wide range of hydro-chemical data flow established and permanently received in automatic regime

Outcome 7 Dniester River Spring Ecological Discharge Optimization Study

Output 7: Effectiveness of environmental releases assessed and objective criteria for making decisions about the optimal timing and hydrographs for spring discharge set

Outcome 8: Chemical status of water bodies in the Dniester River Basin

Output 8: Sampling program on Dniester, tributaries, and underground waters conducted and data obtained and analyzed

Outcome 9 Strengthening of Potential of Central and Local Environmental authorities in fishery policy

Output 9: A study and a road map in establishing adequate legislation and institutions in Fishery sector developed

Outcome 10 Ecosystem Services' capacity of Lower Dniester River enhanced

Output 10. Lower Dniester oxbow rehabilitation plan developed

Output 11: Practical measures for biodiversity rehabilitation implemented (subgrants)

OUTLINE OF THE PROJECT ACTIVITIES

COMPONENT 1: Enhancement of water related regulatory framework

ACTIVITIES to reach Outcome 1 - Better management and protection of water towards prevention deterioration and enhancement status of aquatic ecosystems

Output 1: National water related regulatory framework towards compliance with WFD is developed, consulted, and passed on to the relevant institution for adoption

By the time being, great efforts have been made to harmonize national legislation with EU directives, and Moldova have transposed a few directives on water quality and resource management. Among them, the most relevant for the project are Water Framework Directive (WFD) 2000/60/ EC (Water Law, 2011 with modifications of 2020), Council Directive 92/43 / EEC of 21 May 1992 on the conservation of natural habitats and of wildlife species and wild flora (Draft amendment to the Law on the Ecological Network no. 94/2007, in particular, new chapter in the law on the Emerald Network), Directive 2009/147/ EC on the conservation of wild birds, etc.

In 2014 there was signed Association Agreement Moldova-EU according to which by 2017, there should have been transposed 5 (five) European water related directives into national legislation followed by its implementation by 2024. Since then, every 3 years the Government develops Action Plans aimed at implementation of the Agreement. These directives are:

- Water Framework Directive 2000/60/ EC of the European Parliament and of the Council of October 23, 2000, establishing a framework for Community action in the field of water policy, as amended by Decision no. 1455/2001[8];
- Directive 2007/60/EC of the European Parliament and of the Council of October 23, 2007, on the assessment and management of flood risks;
- Council Directive 91/271/EEC of May 21, 1991, on urban wastewater treatment, as amended by Directive 98/15 / EC and Regulation (EC) no. 1882/2003;
- Council Directive 98/83/EC of November 3, 1998, on the quality of water intended for human consumption, as amended by Regulation (EC) no. 1882/2003, and
- Council Directive 91/676/EEC of December 12, 1991 on the protection of waters against pollution caused by certain sources from agricultural sources, as amended by Regulation (EC) no. 1882/2003.

In relation to WFD, there shall be mentioned that these are completing the Framework Groundwater Directive (2006/118/EC), and Priority Substances Directive 2008/108/EC as well

[8] https://eur-lex.europa.eu/resource

as those extending the scope of WFD - Floods Directive (2007/60/EC), and Communication on Water Scarcity and Droughts of 2007. The purpose of WFD is to establish a framework for the protection of inland surface waters and groundwater which shall i) prevents further deterioration and protects and enhances the status of aquatic ecosystems, ii) promote sustainable water use based on a long-term protection of available water resources, iii) enhance protection and improvement of the aquatic environment, inter alia, through specific measures for the progressive reduction of discharges, emissions and losses of priority substances and the cessation or phasing-out of discharges, emissions and losses of the priority hazardous substances, iv) ensure the progressive reduction of pollution of groundwater and prevents its further pollution, and v) contribute to mitigating the effects of floods and droughts.

The 1st Dniester RBDMP 2017-2022 was approved by GD no 814 of October 17, 2017. By that time, there were developed next laws and regulations that to some or another degree had relevance to approximation of national water related legislation to the EU one. These were:

- Water Law no. 272 of December 23, 2011 (entered into force in 2013); implementation of this law was supported by elaboration of 19 (nineteen) normative acts;
- Regulation on procedure of development and revision of the RBDMP approved by GD 866 of November 1, 2013[9] which not completely but in general terms complies with requirements of WFD in terms of structure and content of the RBMP;
- Regulation on monitoring and systematic records of the conditions of surface and groundwater approved by GD no. 932 of November 20, 2013;
- Regulations on the requirements for environmental quality for surface water approved by GD no. 890 of November 12, 2013;
- Regulation on planning of the drought management approved by GD no. 779 of October 4, 2013,
- Regulation on elaboration of Floods Risk Management approved by GD no. 887 of November 11, 2013;
- Methodology for the identification, delimitation and classification of water bodies, approved by GD No. 881 of November 7, 2013, etc.

Since 2017, in Moldova, in the frame of project "Strengthening the institutional framework in the water and sanitation sector in the Republic of Moldova (phase 01)" financed by the Swiss Agency for Development and Cooperation (SDC) and the Austrian Development Agency (ADA) implemented in 2016-2021, and the "EU Water Initiative + for the Eastern Partnership" project, were modified and developed the following laws and regulations:

- Water Law - by introducing new article 9^1 "Water dependent protection areas compliant with WFD", approved by the Parliament in November 2018,
- Methodology of delineation of agglomerations updated and approved GD no. 90 of February 19, 2020 as Annex 8 to Regulations on the requirements for the collection, cleaning and discharge of wastewater into the sewer system and/or receivers for urban and rural settlements approved by GD no. 950 of November 25, 2013;
- Code of Good Agricultural Practices for protection of water against nitrates pollution from agricultural sources approved by Ministerial Order no. 160 of July 27, 2020,
- Methodologies for identification and designation of vulnerable zones to nitrates and nutrient-sensitive areas approved by GD no. 736 of October 7, 2020,

[9] https://www.legis.md/cautare/getResults?doc_id=6540&lang=ro

- Concept of Automated Information System "Water State Cadaster" approved by GD no. 491 of October 23, 2019 also stating protection areas compliant WFD, as well as developed in 2019
- Management Plans for the Drought Management and Flood Risk Management Plans for the Danube-Prut and Black Sea, and the Dniester RBDs, etc.

At the same time, in 2020 there was approved GD no. 386 of June 17, 2020 "On planning, developing, approving, implementation, monitoring and evaluation of the public policy documents"[10] which currently is used by the State Chancellery as a guide for evaluation of draft policy documents, including River Basin District Management Plans whether they comply with provision of above-mentioned GD. In relation to this, it shall be mentioned that: i) requirements to structure, content, timing of public policy documents (namely, strategies and programmes) that are used for evaluation of newly developed RBMPs stated in GD 386/2020 do not comply with those stated in the Regulation 866/2013, and ii0 Regulation 866/2013 was not canceled once GD 386/2020 enter into force. To avoid such a discrepancy in currently in force national regulatory framework as well as its further approximation and harmonization with the EU acquis, and based on the provisions of the laws

- On international treaties 595/ 1999 where art. 19 states that "international treaties are carried out in good faith, according to the principle of *pacta sunt servanda* (treaties must be respected); the Republic of Moldova cannot invoke the provisions of its national law to justify non-fulfillment of a treaty to which it is a party", and
- On Normative Acts 100/ 2017 where art. 76 (1) states that the revision of normative acts consists in the analysis of their content to assess their compatibility with the Constitution, other normative acts in force at the time of revision, as well as (compliance) with the provisions of the EU legislation in accordance with the international obligations of the Republic of Moldova, the following ***activities*** shall be implemented under ***Component 1***:

Activity 1. *Modification of the Water Law no.272 / 2011*

In 2020, following to request from the MoE experts, from Agency Apele Moldovei, Environmental Agency, State Enterprise Hydro-Geological Expedition and other experts involved that time in on-going water addressing projects have prepared a list of modifications to be introduced in the Water Law. Particularly, it related to revising of chapter 2 "Definitions" addressing introduction in the law some new definitions like surface water body compliant with WFD, hydro-morphological alterations, chemical status of surface and groundwater water bodies, environmental standard, ecological status of water bodies, risk of not achieving of GES for water bodies, qualitative and quantitative status of groundwater bodies, ecological potential for strongly modified and artificial water bodies; revising chapter 9 "Administrative authority for water management", chapter 10 "River Basin District Committee", chapter 13 "Monitoring of water resources", chapter 19 "Management Plan for the River Basin District" and others.

This activity shall address

- in close coordination with the Ministry, initiating and promoting further activities towards modifications to be made in Water Law under the auspices of the MoE
- initiating the procedure of collecting of additional proposals towards Water Law modification from relevant institutions and to take part in examination/ revision of already and newly submitted proposals, if any

[10] https://www.legis.md/cautare/getResults?doc_id=121921&lang=ro

- active participation in discussions to be organized under the auspices of the MoE with the aim to draft final version of modifications in Water Law
- Completion of the Regulatory Impact Analysis document (RIA) and assistance during the RIA working group meeting
- Preparation of final version of the modified Water Law no. 272 /2011, assistance to MoE in the promotion of modified law up to its approval
- Other related activities identified during the law modification and approval procedures

Activity 2. To prepare and promote revised version of GD 386/ 2020 on planning, developing, approving, implementation, monitoring and evaluation of the public policy documents

To prepare and promote revised version of GD 386/ 2020 on planning, developing, approving, implementation, monitoring and evaluation of the public policy documents, namely, to exempt from this Decision elaboration and evaluation of Plans developed in conformity with requirements outlined in signed by Moldova Association Agreement, i.e., implementation of WFD. These are Management Plans for the RBDs, as well as Drought Management Plans and Flood Risk Management Plans that shall be developed according to the Water Law (art. 47 & 49, respectively), and their structure and content shall correspond to requirements of above-mentioned Regulations - 779/2013 and 887/ 2013.

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This activity shall also address drafting of required by MoE supporting documents (Information Note, etc.) to ensure smooth approval of the revised version of GD 386/ 2020.

Activity 3. Elaboration of Methodologies and Regulations to meet compliance with WFD

Methodologies to be developed are not enshrined in currently in force Water Law, particularly, it relates to hydro-morphological alterations, analysis of pressures and risk assessment, ecological status of surface water bodies, yet, it is envisaged within implementation of the Association Agreement Moldova-EU of 2014, according to which Moldova is obliged to implement WFD, WFD establishes frameworks for the protection of surface water and ground waters on the basis of river basin management plans to be developed every 6 (six) years. Thus, under this activity, with use of available best international examples and on the basis of already developed national regulations/ methodologies, elaboration of Methodologies and revising of Regulations as follows:

Sub-activity 3.1 Methodology on Hydro-morphological Alterations, Monitoring and Assessment

Sub-activity 3.2 Methodology on Classification of Ecological Status

These sub-activities are inter-connected and shall be implemented one by one. Methodologies to be developed shall be supported by examples, case studies, etc. to demonstrate how they are to be used for local practical purposes.

The WFD requires surface water classification through the assessment of ecological status or ecological potential, and surface water chemical status. For surface waters the overall aim of the WFD is to achieve "good ecological status" (GES) and "good surface water chemical status"; the latter refers to hazardous substances.

The WFD indicator of the health of the water environment is whether a water body is at good status or potential. This is an assessment of a range of quality elements relating to the biology and chemical quality of surface waters and quantitative and chemical quality of groundwater. To achieve GES or potential, good chemical status or good groundwater status every single element assessed must be at good status or better. If one element is below its threshold for good status, then the whole water body's status is classed as less than good.

The lists of quality elements for each surface water category are subdivided into 3 groups of "elements": (1) biological elements, (2) hydro-morphological elements supporting the biological elements; and (3) chemical and physico-chemical elements also supporting the biological elements. The chemical and physico-chemical quality elements supporting the biological elements include: i) general physico-chemical quality elements; ii) specific non-priority pollutants, as well as iii) specific priority pollutants as being discharged. However, specific priority pollutants should only be taken into account in the classification of surface water *chemical status* and *should not be used* as supporting elements for the classification of *ecological status.*

WFD provides definition of 5 (five) surface water statuses - high, good, moderate, poor, bad what coincides with classification of water on the basis of water use provided in Methodology on identification, delineation and differentiation and classification of water bodies approved by GD 881/ 2013.

Yet, probably for the practical reasons, in the Annex V of WFD (table 1.2) only definitions of high, good and moderate status in rivers and lakes for each relevant quality element are presented. Ecological status being an expression of the quality of the structure and functioning of aquatic ecosystems associated with surface waters considers the biological, hydro-morphological, and chemical and physico-chemical quality elements.

For the rivers,
biological elements supporting the biological elements are composition and abundance of aquatic flora, composition and abundance of benthic invertebrate fauna, and composition, abundance and age structure of fish fauna; *hydro-morphological elements* are hydrological regime (quantity and dynamics of water flow, connection to groundwater bodies), river continuity, and such morphological conditions as river depth and width variation, structure and substrate of the river bed structure of the riparian zone, and *chemical and physico-chemical elements* supporting the biological elements thermal conditions, oxygenation conditions, salinity, acidification status, nutrient conditions, and specific and other pollutants.

For the lakes,
biological, and chemical and physico-chemical elements are practically the same as for rivers; hydro-morphological elements are quantity and dynamics of water flow, residence time, connection to the groundwater body and morphological conditions (lake depth variation, quantity, structure and substrate of the lakebed, and structure of the lake shore).
In relation to biological and chemical and physic-chemical elements and surface water classification based on them, national Regulations on the requirements for environmental

quality for surface water (GD 890/ 2013) only partly transposes Annex V and Annex X to WFD, and establishes environmental quality requirements for surface waters and procedure for their classification by 5 (five) quality classes with reference to physico-chemical, hydro-biological as well as microbiological, virological and helminthological parameters. At the same time, such an important quality element as hydro-morphological one is not considered in above mentioned Regulation.

Thus, Methodology on Classification of Ecological Status of water bodies shall address ecological classification of water bodies for the purposes of WFD and shall include qualification tables showing status assessment for each of the quality element – biological, physico-chemical and chemical, and hydro-morphological for both rivers and lakes.

In relation to hydro-morphology, it shall be mentioned that in Moldova there exists no approved methodology on hydro-morphological alterations, classification/ assessment, and monitoring what is the imperative for classification of ecological status. Generally, hydropower installations, navigation infrastructure and flood defense works are typically associated with a range of hydro-morphological alterations with potential adverse ecological consequences.

Methodology on Hydro-Morphological Alterations to be elaborated shall also address identification and designation of Heavily Modified and Artificial Water Bodies and Classification of Ecological Potential. In relation to this, some water bodies may not achieve objective to achieve GES for different reasons. Therefore, under certain conditions the WFD permits identifying and designating artificial water bodies (AWB) and heavily modified water bodies (HMWB) in accordance with Article 4(3). Instead of GES the principal environmental objective for HMWBs and for AWBs is "good ecological potential" (GEP) and "good surface water chemical status", which has to be achieved. The reference conditions of Heavily Modified and Artificial water bodies mainly depend on the hydro-morphological changes necessary to maintain the specified uses. Maximum ecological potential (MEP), as the reference conditions for HMWB and AWB, is intended to describe the best approximation to a natural aquatic ecosystem that could be achieved given the hydro-morphological characteristics that cannot be changed without significant adverse effects on the specified use or the wider environment.

Accordingly, the MEP values for the biological conditions should reflect, as far as possible, the biological conditions associated with the closest comparable natural water body type at reference conditions, given the MEP hydro-morphological and associated physico-chemical conditions. In WFD, an approach similar to those for natural surface water bodies shall be used for HMWB and AWB with definitions for maximum, good and moderate ecological potential (refer to WFD, table 1.2.5).

Sub-activity 3.3: Methodology on Analysis of Pressures and Risk Assessment

Currently, during the development of the RBDMPs both analysis of pressures and risk for not achieving of GES (which, in turn, is not being classified) for the surface water bodies from point and diffuse sources of pollution and hydro-morphological alterations is performed on the basis of approach described in the Guidance Document on hydro-morphology and physico-chemical aspects of impact analysis and risk assessment on the basis of the EU WFD developed under project Environmental Protection of International River Basins funded by EU in 2014. Under this activity, there shall be assessed whether such an approach sufficiently corresponds to required level of assessment considering local environmental conditions. Particularly, this may relate to assessment of risk from diffuse sources, namely, from arable lands and livestock as it does not consider soil structure affecting pollutants penetration, distance to water course, availability of

flood defense infrastructure preventing surface runoff, etc. Developed Methodology shall rely on examples to demonstrate how it can be used for local practical purposes.

***Sub-activity 3.4*:** Examination of GD no. 775/ 2013 On the boundaries of hydrographic basin districts and sub-basins and special maps on which they defined on the subject of possible reduction of number of sub-basins by means of conjunction of several small sub-basins into one.

Altogether, within both RBDs 39 (thirty-nine) sub-basins were identified; of them, in the Dniester - 15 (fifteen) sub-basins. Some of them are very large (e.g., Reut – 7783 km^2) while the others are much smaller (e.g., Dniester Vechi - Ştiubei – Liman (593 km^3), Ocniţa – Ocna (651 km^2), Bălţata – Şerpeni (366 km^2), Saharna – Jidauca (456 km^2). Since ideally, within each sub-basin shall be established River Basin Committee, and RBMP shall be developed for each sub-basin, it seems reasonable to combine small adjoining sub-basins, and/ or to join smaller sub-basin to larger one in order to facilitate both these processes and increase their efficiency.

***Sub-activity 3.5*:** Examination of Methodology on identification, delineation and classification of water bodies approved by GD 881/ 2013 on the subject of its possible revision addressing

- removal of methodological chapter describing simplified method of identification and delineation of water bodies as in the frameworks of various international projects water bodies were delineated on the basis of system A or B delineation according to ecoregion, type, mandatory and additional criteria, or a combination of both, in order to provide for specific reference biological conditions
- enhancing of hydro-morphological component, particularly, hydro-morphological alterations for delineation of water bodies allowing better consider this pressure
- enhancing of chapter 3 addressing ground water taking into consideration that: (i) provided information is very general and does not correspond to Methodology name (ii) it shall be updated by detailed description of steps and sequence of steps/ procedure when delineating groundwater bodies

The concept of groundwater bodies embraces groundwater providing for the abstraction of significant quantities of water, and groundwater which is in continuity with ecosystems and can place them at risk, either through the transmission of pollution or by unsustainable abstraction that reduces baseflows (i.e. the groundwater which can and should be managed to prevent environmental impacts on surface ecosystems).

It shall be mentioned that under development of the 1st Dniester (and of the Danube-Prut and Black Sea) RBDMPs, identification and delineation groundwater bodies referred to aquifers. During the development of draft 2nd Management Plans for the Danube-Prut and Black Sea RBD, there was used more advanced approach based on some WFD recommendations, e.g., for the delineation of groundwater bodies, which are used, or planned to be used in future, for the abstraction of over 10 m^3/day of drinking water on average (art. 7, art. 2.11). In addition to groundwater abstraction, there were also taken into consideration such parameters as aquifer types, their geological boundaries, hydrodynamic differences, hydro chemical variety, groundwater systems, artesian hydrogeological units, etc. To properly consider all these parameters, national experts worked in collaboration with Romanian and Ukrainian experts. Obtained during this GW delineation experience and results shall be formulated as a Methodology that has also rely on examples to demonstrate how it shall be used for local practical purposes.

Sub-activity 3.6: Methodology for classification of groundwater bodies and assessment of groundwater bodies status

This Methodology shall address classification of chemical and quantitative status and rely on examples to demonstrate how it shall be used for local practical purposes. To meet the aim of WFD to achieve good chemical status for all groundwater water bodies, hazardous substances should be prevented from entering groundwater, and the entry of all other pollutants (e.g. nitrates) should be limited. For this Methodology can be used parameters of groundwater quality indicated in the Regulations on requirements to groundwater quality approved by GD no. 931 of 2013 (refer to Annex 1).

Good quantitative status can be achieved by ensuring that the available groundwater resource is not reduced by the long-term annual average rate of abstraction. In addition, impacts on surface water linked with groundwater or groundwater-dependent terrestrial ecosystems should be avoided, as should saline intrusions. So, the status of groundwater bodies as good or bad shall be classified on the basis of concentrations of above pollutants and volume of abstraction vs. available groundwater resources in particular water body.

Sub-activity 3.7: To revise accordingly Regulation on procedure of development and revision of the RBDMP approved by GD 866 of November 1, 2013. Updates shall address ecological status, risk assessment, planning of identified measures, etc.

Developing of aforesaid Methodologies and Regulation's revising shall be made in parallel with Activity 1 Modification of Water Law 272/ 2011 to properly consider new introducing definitions as well as revising of existing and introducing new chapters/ sub-chapters (tbd further) to ensure development of the river basin district management plan in maximum compliance with provisions of the WFD.

Activity 4. To develop and promote roadmap addressing beforehand planning of financing of measures identified during elaboration of Program of Measures within development of the next cycle RBDMPs to ensure implementation of identified priority measures very.

The purpose of this activity is to shift current practice of including in Program of Measures only those measures that are already implemented or are going to be implemented in the frameworks of various projects and/or activities regardless availability of Plan to those which are identified during the Management Plan development, and are the measures which often have relevance to the Plan just because of their location within given river basin district and their positive environmental and social impacts.

Currently, during the evaluation of drafts RBDMPs, only programs containing measures already secured by local, central or international funds which often are not priority ones are being approved by the State Chancellery. Due to such an approach for the Plans evaluation approval, identification of pressures and impacts, and assessment of risk for water bodies carried out within the Management Plan development, elaboration of such a Plan makes no sense.

Sub-activity 4.1 To conduct consultations with representatives of the Ministry of Finance (MoF), Ministry of Infrastructure and Regional Development (MoIRD), Local Public Authorities (LPAs), National Environmental Fund, international donors and other stakeholders, as well as to carry out desk study of relevant national legislation and financial planning documents being approved

by the Government[11] with the aim to determine the prioritization mode and timing of central and local annual budgeting, as well as annual and medium term investment planning, international funding and national funds as regards financing/ co-financing of implementation of measures aimed at pollution prevention of water, especially related to construction/ modernization of waste water treatment plants (WWTP), creation of water protection strips along water courses, extension and/ or improvement of management of water dependent protection areas, etc.

Sub-activity 4.2 To prepare and promote suggestions towards timely (in advance) planning of implementation of priority measures identified during the development of the RBDMP at both central and local levels. These shall include

- further consultation process with all involved stakeholders, keeping the communication line with the donors, etc. to finally agree how likely changes that the measures under the RBDMP are going to become part of administration routine,
- coordination and formulation of planning procedures and its documenting as a legal one, e.g., in the Regulation on procedure of development and revision of the RBDMP (GD 866/ 2013) or as a separate normative.

The procedure can also address possible set up of so called "ad hoc measures financing group" which, once priority measures are identified, shall immediately start close work with financing institutions, central and local authorities, river basin committees to ensure in advance securing of funds for implementation of measures, to be included in the Program of Measures.

Sub-activity 4.3. Following to prepared aforesaid suggestions, to set up so called "ad hoc measures financing group" with the purpose to ensure financing of implementation of identified priority measures. So, once priority measures are identified, this *ad-hoc group* which along with river basin management experts shall also include fundraising, financial and communication experts (the latter will assure communication between MoE and funding institutions) shall immediately start close work with financing institutions, central and local authorities, including Ministry of Environment, river basin committees to ensure in advance securing of funds for implementation of measures, to be included in the Program of Measures.

Activity 5. To assist the MoE in initiation of further procedure of approval of the newly developed and updated Regulations, as well as modified Water Law, including by support in further clearance procedure - preparation of explanatory note, table of concordance, etc.

COMPONENT 2: Elaboration of the 2nd Management Plan for the Dniester River Basin District

ACTIVITIES to reach Outcome 2 - Water quality improvements are achieved through a basin wide approach to water management

Output 2. Dniester RBDMPs is elaborated in accordance with the EU WFD and pertaining national regulatory framework

The 1st Dniester RBDMP 2017-2022 was developed by national experts with support of development partners and approved by GD no. 814 of October 17, 2017. Yet, due to the lack of

[11] Cadrul Bugetar pe Termen Mediu. https://www.mf.gov.md/ro/buget/cadrul-bugetar-pe-termen-mediu

national expertise in the field, insufficient international technical support (expertise) as well as insufficiency of the national normative base that Plan did not fully comply with structure and content of a plan required under WFD. During the following extensive discussions of the Plan, it was emphasized that the both the characterization part and a program of measures shall be improved in the 2nd Management Plan based on the WFD methodology, namely, in-terms of:

- re-delineation of surface water bodies based on the typology (the previous one was based on a simplified official methodology following a "water management" principle), review of groundwater bodies (they were delineated by the final version was not included into the RBMP for the Dniester district)
- analysis of hydro-morphological pressures, classification of "heavily modified" water bodies
- analysis of the risk of "failure to achieve the target status",
- definition of reference conditions and identification of reference sites,
- relationship between characteristics of the basin and an action plan, namely identification of the water body status and establishment of the targeted status,
- development of an updated monitoring network according to the WFD (linked to the hydro-morphology, hydrobiology and water quality to identify the status of water bodies, redefinition of monitoring sites, sampling intervals and spectrum of monitored parameters)
- protected areas[12].

In general, implementation of the RBMP developed in accordance with provisions of WFD shall bring improved water governance based on the integrated river basin management supported by solution of technical challenges based on program of measures. These measures include:

- basic measures (i.e., compulsory measures that have to be implemented towards application of existing directives/ national laws, notably related to drinking water, nitrates, water dependent habitat protection),
- supplementary measures, as economic or fiscal instruments, legislative instruments, codes of good practices, voluntary approaches, research, etc., and
- supplementary measures to be suggested on the basis of their cost-effectiveness within planned time period.

According to both WFD and GD 386/ 2020, Program of Measures shall accompany RBMP to be developed every 6 (six) years. «Over the past years, a number of WFD provisions have been introduced into legal framework in Moldova. During preparation and implementation of the first Dniester River Basin Management Plan, it became clear that the transposition still needs to be further improved. Thus, the truly general and fundamental provisions of the WFD, and in particular the structure of the Plan, have already been transposed into national legislation. But in some places, it is too general, some elements are completely absent (for example, mapping of protected areas, etc.). The role of this project is to improve the national water legislation in its further and fuller approximation to the WFD and other relevant Directives"

The structure of RBMP is clearly described in Annex VII of the WFD and includes the following elements:

[12] Report on the First Meeting of the Working Group on TDA under the project "Enabling transboundary co-operation and integrated water resources management in the Dniester River Basin", March 15, 2018

1. General description of the characteristics of the RBD required under Article 5 and Annex II. This shall include:
for surface waters:

- mapping of the location and boundaries of water bodies,
- mapping of the ecoregions and surface water body types within the river basin,
- identification of reference conditions for the surface water body types;

for ground waters:

- mapping of the location and boundaries of groundwater bodies;

2. Summary of significant pressures and impact of human activity on the status of surface water and groundwater, including:

- estimation of point source pollution,
- estimation of diffuse source pollution, including a summary of land use,
- estimation of pressures on the quantitative status of water including abstractions,
- analysis of other impacts of human activity on the status of water;

3. Identification and mapping of protected areas (as required by Article 6 and Annex IV), i.e.,

- areas designated for abstraction of water for drinking purposes,
- areas designated for conservation of economically valuable aquatic species,
- areas designated for recreation and bathing;
- areas designated as Nitrates Vulnerable Zones and areas designated as Nitrates Sensitive Areas, and
- areas pertaining to water-related habitats and water-dependent species.

4. Map of the monitoring networks established for the purposes of Article 8 and Annex V, and a presentation in a form of the results of the monitoring programs carried out under those provisions for the status of:

- surface water (ecological and chemical),
- groundwater (chemical and quantitative),
- protected areas.

5. List of the environmental objectives established under Article 4 for (water bodies) of surface waters and groundwaters, and also protected areas, including in particular identification of instances where use has been made (of Article 4(4), (5), (6) and (7), and the associated information required under that Article).

6. Summary of the economic analysis of water use (as required by Article 5 and Annex III).

7. Summary of the program of measures adopted under Article 11, including the ways in which the environmental objectives (established under Article 4) to be achieved, particularly, summary of the measures required to implement legislation for the protection of water, practical steps and measures to be taken to apply the principle of recovery of the costs of water use, etc.

To implement the **Component 2**, next activities shall be implemented:

Activity 6. Elaboration of Final Evaluation Report on implementation of the 1st Dniester River Basin District Management Plan for 2017-2022 as per evaluation criteria specified in GD no. 386/2020.

Preliminary analysis of the implementation of Program of Measures accompanying the 1st Management Plan for the Dniester RBD prepared for the first cycle of 6 years (2017-2022), made by national experts[13] has shown that 33% of the measures were implemented, about 40% of the measures were not implemented, and 28% were partially implemented. Among implemented measurers were those related to the management of water resources were mainly oriented towards the elaboration of hydrological models, water monitoring, capacity building, awareness-raising, public information on water status and Dniester Commission, and Moldo-Ukrainian cooperation. As for set of measures aimed at improving hydro-morphological condition, it was practically not implemented. In addition, water bodies were not delineated according to the WFD requirements. The set of measures aimed at improving water quality (construction of sewage treatment plants, sewerage networks, etc.) was practically lacking, due to lack of sufficient financial resources to carry out engineering projects, their construction and commissioning. As for water status and biodiversity within the Dniester River basin, minor improvements can be identified as a result of the implementation of the program of measures.

Elaboration of the Final Evaluation Report shall be conducted according to the evaluation criteria specified in item 60 of the GD no. 386/2020 and shall address brief description of the evaluated document, purpose of the evaluation, evaluation methods and constraints in the evaluation process, main conclusions and recommendations, detailed presentation of the evaluation results according to criteria of relevance, effectiveness, efficiency, durability, impact of the document, results obtained in the implementation process, brief description of the conclusions made on the basis of the evaluation, etc. The conclusions shall address *inter alia* reasons for non-fulfillment of measures, e.g., lack of institutional capacities, lack of inter-sectoral cooperation, mistakes in the process of planning of measures not secured by funds, etc.

Activity 7. Development of the 2nd Dniester River Basin District Management Plan.

The Plan shall be developed in conformity with structure and content outlined in WFD briefly described above and based on findings of

- The UNDP project Dniester Hydro Power Complex Social and Environmental Impact Study project (pressures and impacts on hydrology, hydro-morphology, water quality, hydro-biology, including fish, socio-economic study, etc.)
- Transnational Diagnostic Analysis (TDA) performed under Moldo-Ukrainian GEF project "Enabling transboundary cooperation and integrated water resources management in the Dniester River Basin" followed by further analysis of pressures and impacts on surface water bodies from various sources of pollution and assessment the associated risks in the Moldovan part of Dniester River, as well as other documents elaborated under this project – screening - identification of chemical status of surface water bodies of the Dniester river basin, scenarios for Future Water Demand and Climate Change, simulated in the Dniester River Basin, etc.
- other available data and information.

Approaches to development of the 2nd Dniester RBDMP shall as minimum include:

[13] Anna Jeleapov. Interim Report on Implementation of Management Plan Dniester RBD. 2021

- assessing the outcomes of the first planning cycle accompanied by analysis of
    - reasons for non-fulfillment of measures,
    - mode of measures prioritization,
    - completeness of the river basin characterization, including pressure analysis,
    - adequacy of economic analysis, etc.;
- undertaking the characterization of the Dniester RBD, including
    - re-delineation of water bodies, when deemed necessary;
    - assessment of the current status of waters and the identification of water bodies currently "at risk of not meeting environmental objectives";
- identifying and summarizing significant pressures and impacts of human activities;
- identifying, mapping and characterization of protected areas as well as risks facing protected areas: drinking water protected areas, water related habitats, bathing waters and nutrient sensitive areas;
- reviewing, revising and mapping of monitoring network addressing both hydrological monitoring and chemical (hazardous substances), physico-chemical monitoring, hydro-morphological and biological monitoring.

This shall include but not be limited to ***next sub-activities***:

- establishing and prioritization of environmental objectives;
- economic analysis of water usage;
- economic analysis of ecological services, where appropriate;
- mainstreaming climate change considerations;
- development of program of measures based on the characterization process, and on the pressures identified as well as on feedback received during its discussion under the public consultation process; extensive public consultation on the draft Plan, etc.

The Plan shall be developed with involvement of NGOs/ individual experts from the Transnistrian region, namely, in the field when characterizing river basin, identifying pressures, mapping and characterizing of protected areas, elaborating of priority joint measures on the Dniester River, as well as broad public for the draft Plan discussion and update on the basis of feedback.

Activity 8. Provision of support to the MoE in promotion of the 2nd Dniester RBDMP and its approval.

This activity shall address providing of support in promoting the 2nd Dniester RBDMP until its approval by the Government, particularly,

- support in drafting the summary table according to the objections and proposals received, addressing comments and feedback received,
- legal issues, including preparing all requested documents to the State Chancellery.
- presentation and discussion on the Dniester River Basin Commission and sub-basin Commissions
- organizing of public consultation process, including consultation meetings in the left side of the Dniester River, etc.

COMPONENT 3: Support provided to the Moldovan water management authorities in sustainable management of the Dniester River, both at national and transboundary / international levels

ACTIVITIES to reach Outcome 3= - Improved transboundary cooperation on joint management of the Dniester River basin

Output 3: Support provided to the water management authorities in sustainable management of Dniester River resources at national and international levels

In general, the Component 3 emerges complexity and importance of the dialogue between the Republic of Moldova and the Ukraine on issues related to the use and protection of the Dniester River, but also the impacts identified within the Study of social and environmental impact of Dniester Hydropower Complex operation[14].

Cooperation on various issues of protection and management of the Dniester River basin between the two riparian countries has a long history and variety of aspects. Actually, cooperation with the Ukrainian authorities in the Dniester River basin on the issues of integrated management of water and fish resources, is being developed within the framework of the joint *Commission for the Sustainable Use and Protection of the Dniester River* (hereafter *Dniester Commission*). The Commission was established to implement the *Agreement on Cooperation* (hereafter *Agreement on Cooperation*) *in the Field of Protection and Sustainable Development of the Dniester River Basin between the Government of the Republic of Moldova and the Cabinet of Ministers of Ukraine (Rome 2012)*. Its activities are carried out through regular meetings of the Commission, activities of several work groups and daily operational mode, when deemed necessary.

Negotiations with the Ukrainian authorities in the context of formalization of various aspects of operation Dniester HPC are also taking place by bilateral meetings to negotiate the *Agreement on the Functioning of the Dniester HPC* (hereafter *Agreement*).

In addition, cooperation is also carried out on a more or less regular basis between individual departments, for example between the Hydro-meteorological Services, Sanitary Services, Emergency authorities, as well as between environmental and water agencies. The most regular cooperation has been established in the field of hydrometeorology as regards exchange of climatic and hydrological information and forecast of water level in the river. The main national body that constantly interacts with Ukrainian partners is AAM, especially in matters of coordinating flow regulation, flood passage, determining ecological and reproductive river flow, etc.

Thus, in order to improve cooperation in the Dniester River basin on sustainable integrated management of the transboundary river, and increase capacities of Moldovan counterparts, the project will support the Moldovan authorities in three main areas, namely:

- Support Moldovan delegation of the Dniester Commission and its work groups,
- Support negotiation process for the Agreement on Functioning of the Dniester HPC
- Support institutionalization and capacities of AAM

[14] „Studiul de impact social şi de mediu al Complexului Hidroenergetic Nistrean"

These three generic areas of support are presented below as 3 (three) Outputs and 3 (three) Outcomes and various relevant Activities.

At the 3rd meeting of the Dniester Commission (Orhei, 2021), the Moldovan delegation issued a series of concerns regarding the remarkable impacts due to long-term operation of the Dniester HPC. The main issues are the elimination of adverse effects, ensuring the volume of minimum releases and spring ecological-reproductive flow, mitigating impacts on hydro-biodiversity and ecosystems, fish population, river tourism, etc. These requirements/ concerns of Moldova, based on the results of the Study[15], will be examined by the Ukrainian side and discussed in the Commission's working groups, where expert involvement and advisory support will be required. The national Delegation of the Dniester Commission will also need advice on the recast and compliance of the Dniester HPC Rules of Procedure in order to take into account the ecological and social restrictions downstream of the HPC - 2 dam, in particular, the need to prevent/ minimize hydropeaking and reduce deviations from the normal temperature of the discharged water within acceptable limits for aquatic ecosystems.

Ensuring active participation of the Moldova's representatives (members, experts) in bilateral meetings of the Dniester Commission and its working groups will be a priority for the project. Strengthening the cross-border cooperation capacity of Dniester Commission members and representatives of relevant public authorities continues to be a current and necessary goal. Participation of the experts from the left side of Dniester River, during both preparedness process and meeting itself will be supported by the project. The project activities aimed at supporting the Dniester Commission are next:

Activity 9. Completion and/or elaboration of a number of methodological documents and their officialization.

The project will support the work of consultants to complete elaboration of important methodologies and guides that have already been previously discussed, at the both national level within the working groups of the Dniester Commission, and international meetings of the Dniester Commission. By the time being, 2 methodologies developed under the project *"Study of social and environmental impact of Dniester Hydropower Complex operation"* are pending beneficiary's feedback and thus the process needs to be completed.

Thus, national and international consultants will continue consultations with the interested national authorities to finalize and/or draft methodological documents by introducing several examples, case studies, etc. to demonstrate how they can be used for local practical purposes. The draft methodologies if needed, might be discussed/reviewed in joint working groups of the Dniester Commission, as well as at meetings of the Dniester Basin Committee. Some methodologies, through the consultation mechanism, will be presented to the Transnistrian region relevant experts for comments and feedback.

To support the formal process of methodologies' approval, a law expert will be involved to help finalizing the text, developing all necessary supporting documents for their approval (if required) at the national level. It can also require the support of an international law consultant to better take into account international experience and good practices to develop a set of methodologies or guidelines. Particularly, such a support is needed to complete the development of Methodology for Assessment of damage from hydropower construction and operation and

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extend the scope of this Methodology to other aspects of the *Agreement on Cooperation* (Rome, 2012).

Yet, future status of these is not clear. Therefore, involved experts, jointly with relevant authorities shall decide on the developed documents' status and the mode of their approval.

It is assumed that development of some methodologies will last about one year and the additional period necessary for consultations and coordination (including at the level of joint working groups of the Danube Commission). 5-6 national and international experts can be involved in the work.

Others, due to their innovative nature, e.g., as methodology *for analyzing/ evaluating the effectiveness of the spring ecological-reproductive flow*, will require several years of the field observations to be followed by analysis of obtained results. These activities needed for the methodology verification will be implemented as part of the Component 4.

As a minimum, the following methodologies should be developed, discussed and approved:

- methodology for estimating the minimum river flows and the spring ecological-reproductive flow (release),
- methodology for analyzing/ evaluating the effectiveness of the spring ecological-reproductive flow,
- methodology for estimation of damages in transboundary context due to development of hydropower and other transboundary impacts,
- methodology for estimation of damage due to loss of ecological services as a result of long-term operation of the Dniester HPC.

Activity 10. Support in organizing and participating in meetings of the Dniester Commission and its Working Groups.

The project will provide necessary support to the national part of the Dniester Commission for the organization and (or) participation at the meetings. According to the work plans of the Dniester Commission, meetings are held at least once a year (alternately, on the territory of Moldova and Ukraine). The project will finance the organization of meetings in Moldova or participation of Moldovan Delegation at meetings in Ukraine (travel expenses, accommodation). A total of 4 (four) such events are expected during the project implementation period.

The project will also provide for logistical support to the Working Groups of the Dniester Commission. According to the work plan of the four Working Groups, joint meetings are planned, either in Moldova or in Ukraine once a year, at least. In total, 16 (sixteen) such meetings can be held during the project. As a rule, the national delegation of the WG at such meetings includes 3-5 people. The project will cover organizational costs (when holding meetings in Moldova) and transport/ accommodation (when holding meetings in Ukraine).

In addition, the support of legal advisers (yet, legal working group is not a formally established) on various aspects of the Commission's activities and legal analysis of its documents may be required.

Activity 11. Selective activities to support the Working Groups

For the daily and regular activities of the Dniester Commission and the constant involvement of the expert potential of both countries, four WGs were established. One WG usually includes up

to 5 national experts per country. WGs activate according to their annually agreed plans, analyze and develop documents, prepare proposals for the Commission, conduct consultations, etc. The vast majority of such activities are carried out by experts within the framework of their duties.

But, often, the WGs needs financial and technical support, without which the group is not able to perform its tasks in full and with the proper quality. For example, sometimes it is necessary to organize short-term visits to the territory, conduct consultations with local authorities, sample water and perform analysis, conduct population surveys or involve additional consultant, etc.

Therefore, the project will support each of the WGs. The WGs will identify a priority area for such a support, formulate an updated ToR for this, evaluate obtained results and implement them in an international context. For example, this kind of selective activity can be as follows:

- WG on Monitoring and Information Exchange - development of the Regulations for transboundary monitoring of water quality, hydrological measurements, hydro-biological studies, etc.;
- WG on Planning and Management of the River Basin - development of the Concept and project proposal for the organization of the Dniester GIS and the Atlas of the Dniester;
- WG on Emergency Situations - assessment of the availability of forces and means for localization and liquidation of accidental pollution in a transboundary context.

The project will support these activities throughout the entire period of its implementation by contracting the relevant experts, laboratory services (e.g. for monitoring and emergency situations activity) as needed.

Activity 12. Application of international experience and approaches in cross-border cooperation

On some aspects of cross-border cooperation with Ukraine, the national Moldovan part of the Commission and its WGs will need to transfer experience and knowledge, taking into account international practices and approaches. Therefore, the project will facilitate the involvement of short-term international consultants.

International consultations may be required in such areas as water resources management in a transboundary context, hydro-technical impact, regime and operation of hydroelectric power plants, environmental aspects and restoration of aquatic and water related ecosystems, legal support for international cooperation, prevention of water conflicts, etc. The nature and direction of such international support will be determined jointly with the beneficiary, for example, if there is a need to revise (comment on) the operating rules of the Dniester HPC, etc.

ACTIVITIES to reach Outcome 4 - Better management of the Dniester HPC in view of social and environmental needs downstream

Output 4 Group for negotiating the Agreement on the Functioning of the Dniester HPC is supported by relevant expertise, trainings, negotiating skills

The group for negotiating the *Agreement on the Functioning of the Dniester HPC (Agreement)* was set up in order to address/ formalize the Dniester River hydropower issues in relations with Ukraine. The Agreement developed and negotiated for more than a decade between the Government of the Republic of Moldova and the Cabinet of Ministers of Ukraine aims to provide a legal basis for the functioning of Dniester HPC, establishes the responsibilities and rights of

both contracting parties, use of property, delimitation borders, land lease, etc. Yet, Art. 6 of the Agreement addressing environmental problems still remains the main impediment to its signing.

The requirements submitted by the Moldovan side, which are considered stringent to ensure national security, are not fully taken into account. The Study of the social and environmental impact of the operation of the Dniester HPC[16] confirmed the Moldova's concerns regarding numerous impacts produced by the hydropower sector on the Dniester River ecosystem and the damage caused to the entire territory of the country. In these conditions, the Republic of Moldova needs assistance to develop and negotiate another draft Agreement, which will reflect the downstream requirements.

The role of the support is to cover as many issues as may be covered by the Agreement on the Functioning of the Dniester HPC and its possible annexes/ rules/ regulations so that would be easy to use in negotiations with the Ukrainian partner (territorial sovereignty, law property, demarcation of the border, environmental impacts, compensation of damages and losses, etc.).

At the same time, a mediator will be needed to facilitate the negotiation process and assist the Moldovan Delegation to promote new version of Agreement on the Functioning of the Dniester HPC.

The project will support the WGs in negotiating through the following activities:

Activity 13. National and international legal advice in drafting and promoting a new version of Agreement on the Functioning of the Dniester HPC on all matters that could be regulated

The project will support the development of a new version of the Agreement on the Functioning of the Dniester HPC.

The draft Agreement will be mainly a framework document, but several technical annexes to it will be developed; they will concretize and clarify the text of the Agreement, establish criteria and mechanisms for verification of the Agreement clauses' execution. A group of international and national experts in various fields, as well as legal experts in the field of land relations, border delimitation, lease relations, dam ownership and infrastructure relations, compensation measures, etc. will be involved in the development of the Agreement and its annexes.

Within the framework of the project, extensive consultations will be held at the national level on the issue of promulgation and the content of a new version of the Agreement on the Functioning of the Dniester HPC, as well as all formal procedures for registering the Agreement at the national level. The draft of the new Agreement should be presented and discussed among national authorities as well as at the meetings of the Dniester Basin Committee with the invitation of specialists and the public from the Transnistrian region.

Experts, including international lawyers, together with the authorities, should work out mechanisms for the further presentation of a new version of the draft Agreement at the transboundary level and the procedure for its ratification. The duration of work on the development of a new draft of the Agreement, including broad consultation process is around 2.5-3 years.

Additionally, the project might cover the activity to evaluate the state of the art of Rome Agreement and develop / propose its modification based on the needs / interests of Moldova

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and to propose the modifications for discussions within the Dniester Commission as well as within the meetings of Helsinki Convention as the case may be.

Activity 14. National and international consultancy to mediate the Agreement negotiation process

The project will support the presentation and promulgation of a new version of the Agreement on the Functioning of the Dniester HPC at the international level, for example, at a meeting of a group of negotiators. The experts will support the negotiation process and the finalization of the text of the Agreement and its annexes.

Activity 15. Strengthening of negotiation skill by organizing workshops, trainings.

For the group of negotiators of the Moldovan Delegation, trainings will be organized on how to conduct the negotiation process in general, as well as specific trainings on conflict prevention and resolution, maintaining a balance of demands and concessions, etc. The details of the trainings will be specified depending on the needs of the beneficiary, but should contain a significant amount of practical exercises, simulation of the negotiation process, thematic games, and other training techniques.

Participants in the negotiation process on the Agreement on the Functioning of the Dniester HPC, as well as representatives of the Moldovan part of the Dniester Commission and its WGs will be involved in such trainings. In total, it is expected that the training will be organized in several stages and it will be attended by at least 50 people.

ACTIVITIES to reach Outcome 5 - Capacities of the AAM as a key national water management institution enhanced

Output 5 The responsibilities, functions and staff structure of AAM are adjusted to comply with integrated water management needs

Since the institutionalization of the Dniester Commission, the representatives of the AAM hold important positions in this Commission, particularly, vice-president and members of secretariat. Thus, AAM ensures the institutional memory of the activities within the Dniester Commission. The role of AAM is also extremely important in the negotiation process of the Agreement on the Functioning of the Dniester HPC as well.

At the national level, the AAM performs many functions, e.g., keeping the Register of hydro-technical installations, maintaining flood protection infrastructure, monitoring of implementation of the RBDMPs, supporting RBD and sub-basin committees, etc.

The national institutional framework is currently being reviewed, including in the area of the water resources management. Following the examination of functional responsibilities of the water management institutions, including AAM, and evaluation of their institutional capacities, a plan for institutional reform and enhancement of their capacities will be elaborated. It is absolutely necessary that the reform concept to provide (to highlight) for the AAM new important responsibilities in the field of the river basin management, including oversight of the RBDs management planning process, participation in water resources status evaluation and management , drought and flood risk management plans realization, control and supervision of

hydrotechnical infrastructure, including over dam safety, international cooperation in the field of water management, etc.[17]

Since the AAM is involved in the process of establishing annual regulated spring reproductive flows from the Dniester HPC, then the project takes into account the need to strengthen the AAM capacity to monitor the operation of Dniester and Dubasari HPCs, including data collecting and processing, and elaborating impact/ damage reports and suggesting the remedial measures.

In general, the reform shall be aimed at organizing an integrated management of water resources, including by developing and amending the necessary regulatory framework, developing and implementing the Agency's self-financing mechanism, etc. As the AAM is under reformation process now and its final structure of Directorates Sections has not yet been determined thus the project will support of the AAM through following activities:

Activity 16. Support in the formation of the Directorate for Hydraulic Structures

Together with the AAM staff in charge, a small group of national experts (hydraulic engineer, lawyer, management specialist, etc.) will develop a draft *Rules on the functioning of the Directorate for hydraulic structures*, which will reflect its main responsibilities and activities. These can include but not limited to:

- regular and operational monitoring of the conditions of hydro-technical infrastructure and reservoirs,
- entry of data on hydraulic structures in the database (Register of the Hydrotechnics Patrimonium),
- assessment of safety of dams and other water-retaining structures,
- analysis and development of proposals for liquidation of the high risk reservoirs (on the basis of methodology for liquidation of reservoirs, developed under project "Strengthening the institutional framework in the water and sanitation sector in the Republic of Moldova (Phase 01)",
- organization of a system for training and certification of owners of ponds and reservoirs.

Above mentioned and other activities and responsibilities (if any) of the Directorate will be specified and deployed during the implementation of the project. The optimal structure of the Directorate (possibly including sections) and staff needed to complete the tasks will be proposed, and job responsibilities (fisa de post) of employees shall be prepared. At the same time, specific attention will be paid to the role and place in the institutional structure of the AAM of the existing Directorate for information and database, cadaster and heritage. At the moment, this Directorate is focused on three functions, such as:

- administration and development of the automated information system "State Cadaster of Waters",
- coordination of the files for delimitation of real estate from the category of land, water fund and adjacent to them,
- evidence and monitoring of the patrimony administered by the AAM.

[17] Analiza funcțională a autorităților publice din sectorul de mediu, 2022

The performance of these functions listed above will also be reviewed and the necessary Rules and Procedures will be developed.

As part of the development of the Rules, the possibility of organizing a sub-division (section) that will directly deal with issues of Dniester River transboundary cooperation, registration of water flow through the Dniester and Dubasari HPSs, participation in regulating of spring floods and environmental and reproductive releases, collection of data about negative and positive consequences resulting from operation of hydro-structures and evaluation of their effectiveness, cooperation with similar units in Ukraine.

Activity 17. Support for the formation of the Directorate for Water Resources Management

Similar to the Activity 17, together with the AAM involved staff, a small group of national experts (lawyer, management specialist, planner, specialist in the implementation of the provisions of WFD, etc.) will develop a draft *Rules on the functioning of the Directorate for Water Resources Management* which will reflect main responsibilities and activities of this unit. These can include but not limited to:

- Preparation of the River Basin Characterization section (according to art. 5 of WFD) for the RBMPs, including:
  - typology of surface water resources;
  - identification of surface and groundwater bodies;
  - identification of heavily altered water bodies;
  - assessment of risks of not achieving GES and ecological potential.
- Participation in the development of the Program of Measures and activities for their inclusion in Management Plans for the RBDs
- Monitoring of implementation of the RBDMPs, preparing analytical Reports on the implementation of the Plans
- Participation in the development of Drought and Flood Risk Management Plans for both districts
- Support, including as a Technical Secretariat, to the Dniester RBD Committee and coordination of activities of Sub-basin Committees (sub-basin water management plans, drought and flood risk management plans)
- Maintenance of the Water Cadastre and compilation of basin water management balances
- Identification of the hydro-morphological status of surface water bodies, identification of hydro-morphological loads, assessment of their impact on the ecological status of surface water bodies

In addition, this activity will address such issues as Water Fund to be developed, the delimitation of boundaries and aspects of the ownership of water bodies, the system of geo-information management of water resources, support and filling of databases.

Above mentioned and other activities and responsibilities (if any) of the Directorate will be specified and deployed during the implementation of the project. The optimal structure of the Directorate (possibly including sections) and staff needed to complete the tasks will be proposed, and job responsibilities (fisa de post) of employees shall be prepared.

As part of the development of the Rules, the possibility of organizing a subdivision (section) that will directly deal with hydro-morphological alterations, permanently monitor hydro-morphological status of water bodies, identify heavily modified water bodies, etc.

Activity 18. Identification of options to cover additional costs of functioning of above 2 (two) Directorates and staff training

The planned activities of the 2 (two) proposed Directorates to be dealt with hydraulic structures and water resources management will most likely require the short-term involvement of external experts, specialists, scientists, etc. to perform some specific tasks. For that the AAM should have a secured funds for organizing competitions and paying ad-hoc external experts who will be entrusted with performing some specific tasks (for example, identifying the risk of not achieving a GES, hydro-morphological assessment, etc.).

For that it will be needed to estimate funds to cover ad-hoc activities of the Directorates and identify sources of financing.

After the approval of the structures of the two Directorates, the clarification of the staffing table and the recruitment of personnel, a training will be held, the program of which will be specified during the implementation of the project. Methodological papers to support day by day activities of both Directorates will be developed and used as training materials.

COMPONENT 4: Implementation of the on-the-ground activities to improve current ecological conditions of the Dniester River

ACTIVITIES to reach Outcome 6 - Capacity Building for Transboundary Water Quality Monitoring

Output 6: Wide range of hydro-chemical data flow established and permanently received in automatic regime

The Study of impact on the water resources of Moldova resulting from the Dniester HPC, has revealed that the water quality in the Dniester was noticeably changed since start of its operation.

As the river flows, the quality of the water also changes significantly. The main anthropogenic factors resulted in deterioration of water quality are the discharge of poorly treated or untreated wastewater from the WWTPs, discharges form other point sources (e.g., industrial), as well as from numerous diffuse sources of water pollution - agricultural fields (pesticides and fertilizers), landfills, etc.

Currently, the quality of water in the river is controlled by the analytical laboratory of the Environmental Agency (formerly the laboratory of the State Hydro-meteorological Service (SHS) in several places. As a rule, water samples are taken along the riverbanks 4 (four) times a year. Also, the laboratory periodically conducts joint sampling with the Ukrainian colleagues on the Dniester River at the river entrance on and exit from the territory of Moldova.

In recent years, information on the hydrological regime of the Dniester River is quite well organized, as many automatic gauge stations are functioning. At the same time, water quality sampling is performed manually only 4 (four) times a year, with subsequent analysis of samples in the laboratory. The time interval between sampling and obtaining results for a number of parameters is usually several days. Within these days the relevance of these data is being lost, especially when operational data are needed, for example, in case of an emergency or a threat of transboundary pollution.

The aim of the activities described below is to provide the national water quality monitoring system on the Dniester River with timely operational information. It is proposed that one (1) automatic water quality measuring station will be installed on the bridge in the upper reach of the river near the village Unguri (entrance to Moldova).

The automatic water quality measuring station will provide a wide range of general and physico-chemical parameters such as temperature, pH, electrical conductivity, dissolved oxygen, turbidity, ammonium ions, nitrates, chlorides, etc.

Activity 19. To identify the location of automatic post;

Activity 20. To prepare the Technical Specification, training program and tender documentation.

Activity 21. To purchase the equipment: - 1 automatic post, samplers, data logger and software.

Activity 22. Installation of procured equipment, calibration and testing and provision of Warranty Services

Activity 23. Organization of the training by the equipment Supplier for the Environmental Agency personnel involved in the maintenance and operation of the equipment, troubleshooting, data transfer, collection, storage, and reporting. The Supplier should also propose any additional training that he considers critical for long term success of the observation system. The training shall be organized on the sites where the equipment will be installed. At the end of the training program, the Supplier shall issue a certificate for every participant proving the completion of the aforesaid program and the received knowledge and eligibility to work with the equipment. This could also be done through an examination at the end of the training.

ACTIVITIES to reach Outcome 7 Dniester River Spring Ecological Release Optimization Study

Output 7: Effectiveness of environmental releases assessed and objective criteria for making decisions about the optimal timing and hydrographs for spring discharge set.

Spring ecological release is carried out on regulated rivers in order to imitate the spring flooding of the river, which is associated with many natural processes characteristics of the river ecosystem, in particular, spawning of phytophilous fish that use the vegetation of flooded meadows to lay eggs on them. In connection with the embankment and development of most of the flooded meadows of the Lower Dniester River, the areas of spawning grounds have been greatly reduced, and therefore during an ecological discharge it is important that suitable areas are flooded, and the fish can lay eggs. It should be borne in mind that spawning of each fish species occurs at certain water temperatures, and without reaching them, the ecological discharge will be wasted.

Therefore, successful spawning during an ecological discharge can only occur with a combination of suitable weather and hydrological conditions, which are achieved by the use of a successful hydrograph.

At present, there is no complete understanding between the parties of the Dniester Commission regarding the procedure for conducting the spring eco-release and this is an obstacle for the annual interstate coordination of its regime in the spring. Some of the commission members

believe that the natural flow should be reproduced by passing the water through the Dniester HPP as it comes from the upper reaches and without reference to a suitable temperature. Others proceeds from the fact that since conditions of the lower reaches, where the main spawning remain, have changed, then the conditions and time of spawning must be selected and the rise of water must be carried out at the right moment taking into account the amount of water and its temperature, as well as the forecast weather.

Obviously, only additional studies aimed at assessing the effectiveness of ecological releases can provide objective criteria for making decisions about optimal timing and hydrographs. This requires carrying out the research in the Lower Dniester region, during which the timeliness of releases at specific temperatures and water levels will be assessed in terms of ensuring the quality of spawning of the most common Cyprinidae fish (common carp, roach, bream, white-eyed, silver bream, etc.) through stingray of juvenile fish, etc. These studies shall be carried out by working group represented by ichthyologists from the Dniester right and left banks in Moldova and by Odessa region in Ukraine, as well as hydrologists from Chisinau and Odessa. Estimates shall be made over several years (at least, 3 to consider as much as possible water conditions and temperature regime.

The results obtained on the success and failure of spawning will allow to draw conclusions about the optimal parameters of spring eco-releases.

The activities will include:

Activity 24: Sampling during the spring period.

Activity 25: Laboratory analysis of the samples collected.

Activity 26: Report on optimal timing and optimal amount of spring discharge preparation.

ACTIVITIES to reach Outcome 8: Chemical status of water bodies in the Dniester River Basin District

Output 8: Sampling program on Dniester, tributaries, and underground waters implemented, and data obtained and analyzed

Determining the chemical status of surface and underground water bodies is an important activity for assessing the status of water bodies and preparing a RBDMP. The importance of determining the chemical status is due to the fact that waters subjected to anthropogenic pressures often contain a wide range of chemical compounds, including toxic, mutagenic, carcinogenic, persistent and other substances hazardous to the environment and humans.

Currently, according to Annex 2 of the WFD, 33 (thirty tree) components are included in the list of such compounds - heavy metal salts, pesticides, persistent organic compounds, hydrocarbon derivatives, etc. They are classified as priority substances, and some of them, with more stringent hazardous properties - as priority hazardous substances.

Subsequently, this list of substances was expanded by several more compounds according to the Directive 86/280/EEC and Directive 76/464/EEC. According to the Directive 2008/105/EC, so-called Environmental Quality Standards are established for all these compounds. In total, 12 more compounds were added, and thus the total list includes 45 compounds.

In addition, countries can identify additional compounds that are found in a given river basin as basin priorities. Having known the chemical status of water bodies, management plans

developed in accordance with the WFD include requirements and measures to stop emissions of priority hazardous substances from industry and other measures to reduce the entry of priority substances into natural waters. Therefore, determination of chemical status of surface and groundwater bodies is an integral part of the development of a management plan.

At present, in Moldova, determination of the chemical status of surface waters shall be carried out by the Environment Agency, and the chemical status of groundwater's - by the Agency for Geology and Mineral Resources. However, the existing capacities of both agencies do not allow fulfilling this task in full. At the same time, if the Environment Agency still has the necessary laboratory facilities to determine a large range of compounds, including those from the priority list, monitoring of the chemical status of groundwater is not carried out on a regular basis at all. Even for surface waters, the data that can be used to determine the chemical status are very fragmentary, do not cover a sufficient number of water bodies, and are limited just by a few compounds.

One of the reasons for impossibility of conducting analyzes is the lack of necessary reagents, gases of the required degree of purity, standards and laboratory equipment. The second reason is the lack of funds for regular visits to monitoring sites for sampling water and bottom sediments.

As a result, the TDA of the Dniester River Basin developed in the frameworks of the GEF Moldovan-Ukrainian project "Enabling transboundary cooperation and integrated water resources management in the Dniester River Basin" states that both Moldova and Ukraine have very limited capacities for determining the chemical status, while both accumulated and obtaining data are very fragmentary and incomplete both in time and in geographical aspect. Both countries possess weak laboratory base, and monitoring is not carried out on a regular basis. In Moldova, 70% of surface water bodies are not subjected to determination of chemical status, and in the remaining 30%, half of the required spectrum is hardly determining, often - only individual compounds. No data on chemical status are available for groundwater.

This kind of analyzes in the country is also performed by the laboratory of the Institute of Chemistry, which can participate in the project and coordinate work, support expert, as well as perform training and quality control.

Laboratories that have basic equipment for such complicated and complex analyzes are usually not provided with the necessary reagents, consumables, standards, etc. There are no laboratories in the country accredited to analyze compounds included in the list of priority substances of the WFD.

In 2019, also within the framework of the GEF Moldovan-Ukrainian project "Enabling transboundary cooperation and integrated water resources management in the Dniester River Basin a Slovak laboratory conducted a study, namely, the screening of more than 6,000 compounds at some key points on the Dniester River and its main tributaries. In Moldova, the most polluted samples were recorded in the Bic and Reut Rivers with a significant excess of concentrations of individual compounds and metals. Residues of pesticides, pharmaceuticals, industrial chemicals, plasticizers, and stimulants were identified among the most frequently encountered compounds. Excesses of permissible concentrations for heavy metals were also revealed. As part of the above screening study, a list of additional compounds was proposed for monitoring and identifying the chemical status of waters.

Approach

Since currently there exist no data on the chemical status of water bodies, the following approach is proposed in this project – there will be developed tentative annual program. In fact, it will be so-called "research" monitoring, which will be carried out for 3 years as follows:

Dniester (main channel):

- water sampling points will be established along the entire length of the Dniester, in accordance with its division into water bodies - in total, 7 points;
- additional monitoring points will be tied to large cities located on the coast and places of wastewater discharges (Ataci, Soroca, Rezina, Criuleni, Tighina, as well as cities located on the left bank - Camenca, Ribnitsa, Dubasari, Grigoriopol, Tiraspol - in total, 10 points;
- bottom sediments will be sampled at the same above mentioned 10 points;
- in addition, another 15 control points will be selected along the Dniester River, located in places with a risk of water pollution by priority compounds - large villages, irrigation and drainage systems, enterprises, areas of intensive agriculture, etc. – in total, 15 points;
- biological samples (fish tissue) will be taken in some as above places along the Dniester – in total, 10 samples.

Tributaries:

- Water sampling sites will be established on all the tributaries with a basin surface of more than 300 km^2 (Reut, Bik, Botna, Cainar, Ciorna, Ciulucul Mare, Ciulucul de Mijloc, Cogilnic, Copaceanca, Cubolta, Kula, Icel + 2 tributaries in the Transnistrian region - Yagorlik and Cucurgan);
- On each of these tributaries, at 3 (three) water control points depending on the boundaries of water bodies will be identified - in the upper, middle and lower reaches – in total, 42 points;
- Additional water quality control points will be established downstream of WWTPs and wastewater discharge points of such towns as Ocnita, Donduseni, Drochia, Floresti, Balti, Soldanesti, Singerei, Telenesh, Calarasi, Orhei, Straseni, Chisinau, Ialoveni, Anenii Noi, Causeni, Stefan Voda – in total, 16 points;
- Sediment sampling points will be established at the same as above control points, located downstream the towns, as the main potential sources of the surface water pollution with priority compounds – in total, 16 points;
- Additional 15 monitoring points will be established on tributaries with a basin surface of less than 300 km^2. The choice of tributaries will be carried out, and specific sampling points will be identified depending on the risk of pollution – in total, 15 points;
- Biological tissue samples (fish) will be taken from some locations – 10 samples in total.

Groundwater:

- will be selected those boreholes that open the groundwater of a particular water body (aquifer). Since there are 7 (seven) groundwater water bodies greatly varying in area/ volume, location of pollution sources, number of used boreholes, etc., therefore, at least 3 monitoring points will be established on each horizon;
- for water bodies that are widely used for water supply, the number of control points will be increased up to 10 per horizon. Of greatest interest are such water bodies as the Holocene alluvial aquifer complex and the permeable locally water bearing Pliocene-

Pleistocene complex (decentralized water supply), Baden-Sarmatian and Cretaceous-Silurian complexes (centralized water supply)

Thus, in total, the study of the chemical status of groundwater will be carried out at 60 control points.

To increase the ability and capacity to determine the chemical status of water bodies and to have adequate information for its use in the preparation of the Dniester RBDMP, the project will need to carry out the following activities:

Activity 27: Refinement of the basin approach (plan) for study the chemical status of surface and groundwater bodies, including:

- determination of the optimal number and location of control (monitoring) points for collecting data on surface and groundwater bodies;
- development of a program for sampling and delivery of samples to the laboratory
- development of a work program for the analytical departments of the laboratory (heavy metals, organics)

Activity 28: Equipping the laboratory with the necessary reagents, consumables, standards necessary for conducting analyzes within 3 (three) years. A tentative list of required materials includes:

- Standard solutions
- Solvents for extraction, acids
- Various high-quality gases
- Gas Chromatography accessories: vials, septs, syringes, ferules
- Gas Chromatography Columns, etc.

The sustainability and value for money of this measure, i.e., technical endowment of the Environment Agency (laboratory) with required consumables for carrying out an initial sampling is a necessary activity which:

i) allows establishing the list of priority chemicals to be further routinely monitored within the Dniester River Basin and,

ii) represents the development of the technical capacities of the Environmental Agency and a starting point for it in ensuring continuity, i.e., periodic screening and access / subsequent allocation of the necessary funds from the state budget in this regard after the closure of the project.

Activity 29. Sampling of surface and groundwater, bottom sediments, biological tissues in accordance with the research program.

Field work can be performed by laboratories, or by a trained field team on the basis of a contract. In total, the following shall be implemented:

- conducting training on sampling, including groundwater, labeling, preservation, transportation, etc. for the field group;
- annual sampling along the main channel of the Dniester River - at least 32 water samples, 10 samples of bottom sediments and 10 biological samples;

- annual sampling on tributaries – at least 73 water samples, 16 bottom sediment samples and 10 biosamples;
- annual sampling of groundwater - at least 60 samples;
- chemical status monitoring program shall be conducted within 3 years.

Activity 30. Analytical work to identify the spectrum of 45 compounds (plus basin specific substances), analysis of the obtained data and preparation of a report

Activity 31. Comparative tests and external quality control (at least 10% of samples shall be analyzed by an independent laboratory);

Activity 32. Preparation of laboratories and a package of documents for national accreditation to perform analyzes of priority compounds relevant for the Dniester River Basin District.

As a result of this project, the following results are expected: experience gained by the laboratory of the Environment Agency in planning and carrying out work to determine the chemical status of surface and groundwater, analyzing obtained data and information and preparing reports, studying of cartographic material in the required volume and standard, including for further inclusion of relevant information in the Dniester RBDMP; List of priority compounds to be recommended for investigative and operational monitoring of surface water and groundwater. The list can be drawn up as a normative document (or an addition to the existing Regulation on groundwater quality requirements approved by GD no. 931/2013).

Basin layout of monitoring points and a typical annual work program to determine the chemical status in the Dniester RBD; initial data on the chemical status of surface water and groundwater for their inclusion in the Management Plan of the Dniester RBD; training of laboratories on accreditation procedures for the analysis of priority compounds; a package of documents required for accreditation of the Environmental Agency's laboratory.

ACTIVITIES to reach Outcome 9: Strengthening of Potential of Central and Local Environmental authorities in fishery policy

Output 9: A study and a roadmap in establishing adequate legislation and institutions in fishery sector developed

To produce the Output 9 the following activities are foreseen:

Activity 33. Study the extent of poaching on the Dniester and the contribution of both banks of the river and Ukraine to it

Activity 34. Analysis of weaknesses and gaps in existing national legislation (laws, by-laws, regulations, instructions, etc.)

Activity 35. Revision/ improvement and development of the regulatory framework (draft laws and draft by-laws);

ACTIVITIES to reach Outcome 10: Ecosystem services' capacity of Lower Dniester River enhanced

Output 10: Lower Dniester oxbow rehabilitation plan developed.

General situation

In the middle of the 19th century, after the earthquake, the main course of the Dniester River changed, but at the same time, the old riverbed remained, which received the name "Blind Dniester". That is a unique nature monument with a total length of about 42 km. In accordance with the resolutions of the Ramsar Convention on wetlands of international importance especially as waterfowl habitat, the Blind Dniester together with adjacent areas is assessed as the Wetland of National Importance that supports important flora and fauna, including species of international concern and numerous migratory birds. Sector of the Blind Dniester together with the Turkish Garden is designated as Core Area of the National Ecological Network. It is included in the Lower Dniester Ramsar Site that was recently designated as a national park.

Blind Dniester was of considerable value both for the local population (rich fishing, water for irrigation of agricultural lands, resting) and for the conservation of biodiversity.

Many plant species, including some from international lists of protected areas (*Salvinia natans (L.) All., Trapa natans L.*) have been registered here. Lower Dniester oxbow serves as an important source of water for various protected vertebrate mammals that live in the area, as well as a feeding ground for some of them (*Lutra lutra, Mustela ermine, Felis silvestris,* etc.). Lower Dniester oxbow is very important for the bird species, also migratory ones, including protected species under the Bonn Convention on migratory species, offering space for feeding and resting.

Dniester oxbow also has an important role for the adjacent natural territories, including natural areas protected by state, such as the nature reserves "Copanca" and "Leuntea", and the "Turkish Garden" landscape reserve.

Dniester oxbow together with the "Turkish Garden" is a key aesthetic element of the landscape (meadow ecosystems rare in the country), which is of interest to tourists and specialists.

Current situation

Lower Dniester oxbow is the largest natural water basin in the country, which contained earlier rich fish reserves and was used for irrigation, but now it is in a very bad condition. Previously, Dniester oxbow had two natural connections with the river, but later on, the connections were cut due to construction of water locks (in the first part of 20th century) simultaneously with embankment of adjacent lowland. The water locks were neglected during the Soviet time when water recharge was carried out through the water pumping that later became much less. There is also some recharge from the river through the irrigation system that is rather significant during strong floods which are rare.

Now Lower Dniester oxbow is strongly silted by sediments that interrupt physical integrity, and significant part of the bed is dry. In some places artificial dams were built; on the territories where they were rebuilt more than once, extensive sandbanks have been formed; in some places, e.g., between villages Leuntea and Copanca, the riverbed is full of earth resulted from landslides. Due to the fact that water no longer circulates and the depth of the riverbed has decreased, very vulnerable system of the Dniester oxbow has been transformed into a series of water basins with evident features of rotting. Some improvements of the situation were obtained after the intervention of Ecological Society BIOTICA in the frame of SDC/ADA Project "Strengthening the institutional framework in the water and sanitation sector in the Republic of Moldova (Phase 01)" that repaired the water lock at the irrigation station near Talmaza village and cleaned a part of the channel that connects this station to the Dniester oxbow, but this small intervention could not solve the problem of the entire water object.

Justification

In order to preserve the biodiversity along the Dniester oxbow, to assure needed water regime on the adjacent territory, to stop soil salinization on it, it is important to fundamentally clean the entire length of Dniester oxbow at a length of 42 km.

The Dniester oxbow's degradation and drying will destroy the feeding base for inhabited animals and make it impossible for many species to survive, and thus will result in irreversible loss of biodiversity. The local population will lose an important source of water, and there will be also lost a remarkable place that can contribute to the local economic development, and attraction of tourists in the region.

The goal of the intervention is to contribute to the improvement of the situation of the Lower Dniester oxbow as an important place for biodiversity and people, and to involve both banks of the Dniester River in solving the common environmental problems.

Activity 36. Research to update the data on current situation of Lower Dniester oxbow, including ecosystems.

This research is necessary to conduct in order to have updated knowledge related to biological and ecological values, technical options, etc.

Activity 37. *Elaboration of Feasibility Study, ESIA and technical design for the necessary interventions.*

Output 11. Practical measures for biodiversity rehabilitation implemented (subgrants)

It is important to conduct some activities to support biodiversity in the region for a greater impact on fauna and flora. Among these activities can be mentioned: manufacturing of nests for certain species of birds, introducing fish species in the water course, planting of rare plants in the region, arranging specialized ecological tourist routes, marking place of particularly valuable species and locations, monitoring activities, etc.

IV. PARTNERSHIPS AND STAKEHOLDER ENGAGEMENT

The partners and stakeholder engagement is a basis for the successful Project implementation. Therefore, it envisaged strong coordination among concerned partners and stakeholders to achieve the Project objectives.

The Parliament of Moldova is responsible for approval of modifications of the Water Law.

The Government of Moldova is a major beneficiary of the Project. Among the main attributions of the Government in relation to the project are approval of revised Regulation of AAM, 2nd Dniester RBDMP, appointment members of the Moldovan Delegation (including women and men) negotiating with the Ukrainian party on the Agreement on the functioning of the Dniester HPC, participation in defining of Agendas of the negotiation rounds, making decisions on issues discussed, signing the Agreement, etc., as well appointment members of the hi-lateral Dniester Commission.

Ministry of Environment (MoE) is responsible for the development and implementation of national environmental policy, legislation, action plans, norms and standards. MoE is responsible for approval of developed/ updated Regulations. It is directly responsible for

protection of natural resources, including water, aquatic ecosystems, biodiversity and habitats. MoE will oversee all aspects of the project implementation as a national Implementing Partner. MoE will ensure coordination with other relevant projects and initiatives, where appropriate, and will actively monitor implementation of the project activities. MoE will also support the project by ensuring involvement of subordinated organizations, and actively involve civil and scientific society into the project activities, where deemed necessary.

Environmental Agency (EA) under the MoE s responsible for responsible for the implementation of state policy in the following areas of activity: prevention of environmental pollution, including regular monitoring of the surface water and air quality and issuing permits for environmental pollution, regulation of the use of water resources, protection and regulation of the use of the animal and plant kingdom, including aquatic biological resources, conservation of biodiversity and management of natural areas protected by the state, waste management, biosecurity, climate change, etc.

Agency Apele Moldovei (AAM) under the MoE is one of the key institutions of the project. Among others next attributions: (i) technical exploitation of accumulation lakes for common use, according to the hydro-graphic basin principle, (ii) maintenance of protection of dykes; (ii) implements projects in the field of water management. AAM plays an important role in preparation, implementation and monitoring of the RBDMPs, as well as Flood Risk and Drought Management Plans at the district level.

Hydro-Geological Expedition under the Agency for Geology and Mineral Resources is responsible for monitoring of groundwater resources.

Inspectorate for Environmental Protection (IEP) is responsible for enforcement of environmental laws, rules, standards and normatives. In addition, IEP is involved in protection of fish resources and support economically valuable fish. For the duration of project implementation, it will cooperate for design and implementation of practical activities to cope with illegal poaching, and design and programming of fish monitoring.

National Environmental Fund under the MoE is a body which will finance implementation of priority measures identified within the 2nd Dniester RBMP.

Ministry of Finance (MoF) is responsible for development of Law on Budget. Under the project it is a body with whom possible financing of the implementation of priority measures identified within Dniester RBMP will be discussed.

Ministry of Infrastructure and Regional Development (MoIRD) is responsible for development and implementation of national policy in the field of information technology and communication, transport and construction, energy and trade, business development and public infrastructure. In addition, MoIRD is responsible for development and implementation of national policies, including in the areas of water transport, navigation ways, etc. The Ministry is a direct beneficiary as its policy is to maintain navigation in the Dniester is strongly depends on the water level in the navigable stretches of the river. As regards project, MoIRD along with MoE will play an important role in monitoring of project performance and quality of obtained results. The MoIRD is a key beneficiary of the project and will play important role in project performance monitoring and quality of obtained results.

Ministry of Foreign Affairs and European Integration (MoFAEI) exercises the sovereign rights of the Republic of Moldova in the framework of international relations. In addition, MFAEI

negotiates on behalf of the Republic of Moldova or participates at the negotiations of international treaties and agreements and supervises the application of treaties and other international agreements to which the Republic of Moldova is party. Particularly MFAEI could support the activities related to cross section measurements and sampling on the Dniester River. In order to obtain the permit for Moldovan sampling team to work on Ukrainian part of the river MFAEI could use its channels as the case may be.

Ministry of Education and Research is responsible for development and implementation of national policies in the fields of education and scientific research. The implication of subordinated entities into the project activities will be important. More relevant subordinated entities are research institutes (e.g., Institute of Zoology, Institute of Ecology and Geography, Institute of Geology and Seismology, etc.). The research institutes are important pool of expertise and data to be used by the project to provide scientifically based study towards achieving reliable results.

Local Public Authorities (LPAs). LPAs will be important project partners when designing and implementation of the practical activities aimed at improvement of ecological conditions of the Dniester River.

State Hydro-meteorologic Service (SHS). The general task of the SHS is to monitor river flows, forecast and alert high water levels and flood conditions. The SHS has also important role for climate and weather forecasts. The SHS is principal project partner for providing of historical and recent information of climate, Dniester River water levels and flow.

Environmental NGOs, including *NGOs* from the left bank of Dniester River Transnistrian will participate in the stakeholder consultation process as relevant and will assist in the promotion and awareness raising of the project activities and results.

There are several NGOs activating in water sector, particularly, in the Dniester River basin:

- *International Association of Rivers Keepers ECO-TIRAS*, Biotica, Moldova Ecological Movement, etc.
- *EcoContact* has also great experience in human rights and environment legislation as well as possesses practical knowledge and skills in environmental issues such as: water management, risk and environmental impact assessment, vulnerability to climate change, etc.
- *National Environmental Center* is also focused on water governance, basin river management and works with youth, local public authorities in establishing local river basin committees, etc.
- There is also several well-known and active NGOs, relevant in representing civil society in the Transnistrian region.
- It is also expected that NGOs and scientific community, including from the Transnistrian region will participate in some trainings and contribute to the public consultation of some documents, e.g., draft Agreement of the Functioning of Dniester HPC, draft of the 2nd Dniester RBDMP and other developed products.

Dniester RBD Committee and sub-basin Committees. The purpose of the Committee is to ensure effective collaboration between central and territorial water management and protection authorities, central and local public authorities, water users in the RBD, water management services beneficiaries, civil society organizations on issues of management, use and protection

of water resources within the RBD. There are few sub-basin Committees are active and functioning in the Dniester Basin.

COORDINATION AND CONSULTATION

The above mentioned and other partners and stakeholders will be engaged during the course of the project implementation. The active involvement of women will be supported. The project intends to maintain the coordination and consultation among stakeholders through the indicative actions and their frequency spread over the duration of the project.

V. RISKS AND ASSUMPTIONS

As per standard UNDP requirements, the Project Team will monitor risks quarterly and report on the risks status to the UNDP Country Office. The UNDP Country Office will record progress in the UNDP ATLAS risk log according to the UNDP's Enterprise Risk Management Policy that applies to risks across all levels of the organization, including project level. Risks at the Program / Unit level will be tracked through the IWP Risk Register. Risks at the Project Level are tracked through the Project Risk Register. The risks will be reported as critical when the impact and probability are high (i.e. when impact is rated as 5, and when impact is rated as 4 and probability is rated at 3 or higher).

Risks and mitigation measures

As per standard UNDP requirements, the Project Team will monitor risks quarterly and report on the risks' status to the UNDP Country Office. The UNDP Country Office will record progress in the UNDP ATLAS risk log. Risks will be reported as critical when the impact and probablity are high (i.e. when impact is rated as 5, and when impact is rated as 4 and probability is rated at 3 or higher).

Project risks and possible mitigation measures are indicated in the next table.

Table. Risks and mitigation measures

Project Risks				
Description	**Type**	**Impact & Probability** 1 (low) to 5 (high)	**Mitigation Measures**	**Owner**
The project is launched during the difficult geo-political situation in the region/war in Ukraine.	Political	I = 5 P = 5	No mitigation measure exists. The decision to launch the project depends on evolution of conflict.	UNDP, MoE
The 5th wave of COVID-19 pandemic affects riparian countries	Managerial	I = 4 P = 4	All the activities implying a large group of people will be reconsidered (adjusted) to cope with the established epidemiological rules at he given time.	Project Management

Project Risks				
Description	**Type**	**Impact & Probability** 1 (low) to 5 (high)	**Mitigation Measures**	**Owner**
Absence of political will to approve revised/ developed Regulations and Methodologies compliant WFD and relevant updates to the Water Law	Political	I = 4 P = 4	Approval of Statement on necessity to update/ revise national regulatory framework compliant WFD based on provisions of the Association Agreement Moldova-EU	MoE
	Political	I = 4 P=4	In case of objections of the State Chancellery to exempt from GD 386/2020 policy documents developed in compliance with the EU WFD to conduct discussions with SC the aim to justify this necessity	MoE
	Managerial	I = 5 P = 4	To ensure timely producing of the policy document, revision of the 2nd Dniester RBDMP developed in compliance with WFD as per requirements of national regulatory framework in force	Project Manager
Developed Dniester RBDMP fails to comply with requirements of WFD	Political	I = 3 P = 5	Timely preparation of Statement as regards exemption from GD 386/ 2020 "On planning and developing... of the public policy documents" plans developed according to WFD and other EU directives transposed in national legislation	MoE
	Managerial	I = 2 P = 3	Hiring of qualified experts Access to information and data needed for development of the Dniester RBDMP & PoM	Project Manager (PM)

Project Risks				
Description	**Type**	**Impact & Probability** 1 (low) to 5 (high)	**Mitigation Measures**	**Owner**
The price of services and materials are increasing faster	Economical	I = 4 P = 3	Contingency budget line should be used or/and project activity adjusted accordingly to still be able to produce the expected result. Agreement on proposed adjustment should be reached with the beneficiary of the results.	Project Management and Beneficiary

Project Risks				
Description	**Type**	**Impact & Probability** 1 (low) to 5 (high)	**Mitigation Measures**	**Owner**
Ukrainian and Transnistrian counterparts are not able to secure access to the left bank of the river to conduct sampling programs and conduct activities under the output 11 "Restoring the functionality of Centre of Artificial Replenishment of the Fish Species on Jagorlik Creek Natural Protected Area in the Transnistrian Region."	Political	I=4 P=4	The timely communication with the relevant institution (MoE, Border Police, Ministry of Internal Affairs, etc) in Ukraine and Transnistrian region is established. Moldovan-Ukrainian Dniester River Commission is involved in establishing transboundary cooperation The program of sampling will be implemented by mixed group of Moldovan, Ukrainian and Transnistrian specialists as an approach to build the confidence measures. The Output 11 activities do not bear any risks related to the technical aspects of the task: design an works. The risk is exclusively political one and vastly depends on whether the Russia-Ukrainian War will escalate. The risk management strategy for this task is the one already mentioned above: timely communication with relevant institution in Transnistria with appropriate decision taken. It is also to be considered signing a Memorandum of post-project collaboration between Moldovan and transnistrian bodies with clearly formulated success indicators.	MoE, MoFAEI
Risk of automatic water quality station to be vandalized	Managerial	I=3 P=3	The factor of vandalism is taken into consideration while selecting the point of station installation.	UNDP, EA

Project Risks				
Description	**Type**	**Impact & Probability** 1 (low) to 5 (high)	**Mitigation Measures**	**Owner**
Illegal dams removal activity will face protests from local farmers.	Managerial	I = 3 P=4	Prepare negotiations with the owners (beneficiary) of the dams in order to reach win-win solution.	PM

ASSUMPTIONS

Assumptions versus Project objectives, outputs and activities are presented in the next table - Logical Framework Analysis.

Table. Logical framework analysis

Project objectives and outputs	Indicators	Means of verification	Assumptions
Overall objective: To increase the capacity of the Moldovan Government to sustainably manage the Dniester River basin at the national and transnational level			
Specific objectives: 1. To ensure that Moldova has sufficient regulatory framework for the sustainable river management on the basis of basin wide approach	Regulations and updates to Water Law to comply with requirements of WFD for development of RBMP are developed/ revised	- Conclusions of peer reviews documents - Regulations and updates to Water Law are approved	- Political will
2. To provide the Moldova Government with comprehensive and realistic Management Plan for the Dniester River Basin District developed in compliance with the WFD	The Dniester RBDMP is developed	- Draft Dniester RBDMP is consulted, evaluated and final RBDMP is approved	- Regulations to comply with requirements of WFD for development of RBDMP are approved
3. To provide continuous support for enhancement of capacities of national authorities responsible	- Regulation of the water management AAM of 2014 is revised accordingly - Trainings with	- Revised Regulation on the organization and functioning of Agency "Apele Moldovei", its structure and limit staff is approved by Government	- Political will - Good inter-government collaboration and coordination - Functions and

Project objectives and outputs	Indicators	Means of verification	Assumptions
for water management, as well as Moldovan representatives under joint Moldovan and Ukrainian bodies tasked with cross-border management of the Dniester River 4. Improvement of ecological conditions of the Dniester River	members of the Moldovan Delegations to the Dniester River Commission are conducted Practical activities are implemented	-Produced reports on trainings Produced reports on implemented activities	responsibilities of water management institutions are clearly defined, and are not overlapping -Pre- and Feasibility Studies are conducted, when deemed necessary -Land tenure issues when preparing implementation of related activities are addressed -Will of local residents and authorities to benefit from the projects' results
Project Outputs: **Output 1**: National water related regulatory framework towards compliance with WFD is developed, consulted, and handed over to the relevant state institution for adoption / approval.	- Number of Regulations developed and updates - Number of Regulations and updates delivered in due time Acceptance of the products by Client and Project Board (PB)	-Risk management chapters from project progress reports -Written notifications/ complaints of the Consultant to the Client. Minutes of the Consultant weekly staff meetings -Methodology Chapter by Consultant within the Inception Report. -Minutes of PB meeting on Methodology presentation and approval -Minutes of Regulations/ updates presentations' meeting	-Qualified experts in legal issues -Inputs from concerned water management institutions are received in due time
Output 2: The 2nd Dniester RBDMPs is elaborated in accordance with the EU WFD and pertaining national regulatory framework.	- Draft 2nd Dniester RBDMPs is developed and consulted -	-The 2nd Dniester RBDMPs is approved	-Development of the RBDMP is exempted from the GD 386/ 2020 -Regulations compliant WFD are approved -Qualified experts in

Project objectives and outputs	Indicators	Means of verification	Assumptions
			the river basin management planning -MoE provides access to the Draft Plan to interested persons to ensure broad public consultations -
Output 3: Support provided to the water management authorities in sustainable management of Dniester River resources at national and international levels	4 key methodologies to define the state of the river Dniester are finalized/developed: minimum spring flow; effectiveness of spring river flow, damages in transboundary context of development of Hydropower, damages due to loss of ecosystem services	Minutes of meetings, Certificate of approval and Delivery of methodologies (reports) to the client	Component 4 of the project smoothly implemented. The Dniester project areas are out of conflict / disaster zone. The Dniester Hydrocomplex already has the approved regulations which provide the spring discharges figures and the need of the mechanism of impact to these regulations to change them are acknowledged.
Output 4: Group for negotiating the Agreement on the Functioning of the Dniester HPC is supported by relevant expertise, trainings, negotiating skills	The decision reached by commission are acceptable for Moldova	Protocols of meetings, draft papers of- and final decisions on Dniester HPC signed by parties.	The members of negotiating groups are permanently available for training, consultations, etc.
Output 5: The responsibilities, functions, and staff structure of AAM are adjusted to comply with integrated water management needs	New staff structure of AM approved, and finance allocated.	Governmental Decision published in Official Gazette "Monitorul Oficial"	Financial support needed is provided by the MoF Staff is trained.
Output 6: Wide range of hydro-chemical data flow established and permanently received in automatic regime	Stations are installed and tested on site Data publicly available on SHS website	Procurement Contracts, Financial documents Report of training of Hydro-meteorological Service staff conducted.	Budget to maintain the equipment secured. Staff trained to properly use the equipment
Output 7:	Program of research	Reports (Inception,	Partners from Ukraine

Project objectives and outputs	Indicators	Means of verification	Assumptions
Effectiveness of environmental releases assessed and objective criteria for making decisions about the optimal timing and hydrographs for spring discharge set.	is coordinated and agreed in due time with / by all responsible institutions.	Interim and Final)	and Transnistrian region are willing to collaborate. Dniester Water debit (fluctuation) allows catching the correlation with biotic factors studied.
Output 8: Sampling program on Dniester, tributaries, and underground waters conducted and data obtained and analyzed.	Sampling program developed: sampling points established in accordance with the water bodies division and major towns. Sampling and sampling analysis is conducted Report prepared.	Records in Laboratory Registers of Data	Procurement of reagents went smoothly and in due time. Prices for reagents are stable. Monitoring institutions cooperates with each other.
Output 9: A study and a road map in establishing adequate legislation and institutions in fishery sector developed.	Report on existing situation prepared. Drafts for laws' and regulations' amendments developed.	Interviews with inspectors, fishermen's', poachers. List of persons met, Results of express social survey. Statistics on number of pouching detected and fines issued.	The relevant public and private entities representing the sector on both banks of the River are willing to share their knowledge and views, data and information about the current situation, existing problems within the Fishery Sector. The key involved institutions, task's counterparts, are committed to dedicate enough work time for working meetings, brainstorming sessions, workshops.
Output 10: Lower Dniester oxbow rehabilitation plan developed.	Studies conducted, DD prepared RFP package prepared	Reports DD documentation Procurement results	Local authorities are committed to implement the developed rehabilitation plan.
Output 11: Practical measures for biodiversity rehabilitation implemented	Subgrants implemented by NGOs	Reports DD documentation Procurement results	The context (economical, political) for cooperation with Transnistrian region is not favorable.

Project objectives and outputs	Indicators	Means of verification	Assumptions
(subgrants).			The prices for materials and services are not stable.

VI. PROJECT MANAGEMENT

Cost Efficiency and Effectiveness

The proposed strategy is expected to deliver maximum results while making the best use of available resources, offered by the Government of Sweden. Further resource mobilization efforts through the engagement with other Donors will be undertaken as necessary. The Project will look for synergies with other projects in the area of water security, integrated water management, strengthening of environment institutions' capacities, that might allow for joint activities and for cost-sharing of the activities to achieve higher value for money, as well as will use the cost-saving Long-Term Agreements with certain categories of service/goods providers available for the UN Country Team agencies due to existing arrangements within the UN Moldova Country Office. Attention will be paid to the collaboration with other UNDP projects, such as for instance GEF SGP, GEF Prut wetland management, as well as others as might emerge in the upcoming years.

Throughout the project implementation, the Project team shall maintain primary attention on other ongoing and planned initiatives (inside and outside of UNDP) and actively explore possible synergies and opportunities for co-ordination and co-operation to ensure complementary rather than overlapping activities. Consultations with key public authorities, other donors and financing entities will be conducted throughout the implementation in combination with required adaptive management, thereby seeking to ensure the most cost-effective and results oriented use of the Donor's resources assigned for the Project.

Project Management

The project will be carried out under the Direct Implementation Modality. This means that UNDP will take on the role of Implementing Partner and will assume the responsibility for mobilizing and applying effectively the required inputs in order to reach the expected outputs and outcomes. UNDP Moldova will assume the overall management responsibility and accountability for project administration, including organizing implementation of Project activities, procurement of goods and services, recruitment of Project personnel and national and international consultants, connecting to national and international expertise and knowledge networks, and the quality assurance, ensuring the timely and expedient implementation of Project activities, including the provision of continuous feedback and information sharing among stakeholders.

UNDP Country Office will provide programmatic, quality assurance, procurement, financial management and other operational support, while these direct project costs incurred will be charged to the Project budget. The Project will work in close collaboration with other UNDP Moldova Projects. The Project Team will look for synergies with other Projects that might allow for joint activities and for cost-sharing of the activities to achieve higher value for money.

The Project Team will be placed in rented premises and will require the necessary facilities and equipment to ensure functionality and operability of the project, including computers, copy machine, phones, project car, etc. The project team will have a possibility to take part in the staff development activities in country or abroad, as well as to accompany representatives of beneficiary/partner institutions in the study visits ensuring their good and efficient organisation and also building their capacities for the effective performance and efficient project implementation.

The site of the Project implementation is city of Chisinau, with travel opportunities to selected sites in the Dniester River basin and Ukraine and Transnistrian region, where appropriate and under strict contingency rules of UNDP. The project office will be located in Chisinau and supplied with equipment needed for its smooth operation.

Audit arrangements

The Project is subject to the standard UNDP audit arrangements. Being a subsidiary organ of the UN General Assembly and fully a part of the United Nations, UNDP enjoys a special status deriving from the UN Charter,. the general legal framework of the UN, including the privileges and immunities enjoyed by the organization pursuant to the Convention on the Privileges and Immunities of the UN adopted by the General Assembly in 1946. In accordance with this status, audits of UNDP are guided by the 'single audit' principle. Under that principle, any review by any external authority, including any governmental authority, is precluded under regulation 7.6 of the Financial Regulations and Rules of the United Nations, which provides that "the Board of Auditors shall be completely independent and solely responsible for the conduct of audit." This principle was reaffirmed by the General Assembly in its resolution 59/272: "The General Assembly [...] 11. Reaffirms the role of the Board of Auditors and the Joint Inspection Unit as external oversight bodies, and, in this regard, affirms that any external review, audit, inspection, monitoring, evaluation or investigation of the Office can be undertaken only by such bodies or those mandated to do so by the General Assembly".

The UNDP Office of Audit and Investigations (OAI) conducted an audit of UNDP Moldova in March-April 2018, covering the period, 01 Jan 2017-31 Jan 2018. OAI assessed the UNDP Moldova office as 'satisfactory' (the highest rating), which means "The assessed governance arrangements, risk management practices and controls were adequately established and functioning well. Issued identified by the audit, if any, are unlikely to affect the achievement of the objectives of the audited entity/area". Satisfactory performance was noted in the following relevant areas: governance, human resources management, procurement, financial resources management.

Financial management

Financial management of the project will be conducted under UNDP Financial Regulation and Rules (FRR). FRR are regulations that govern the financial management of the United Nations Development Programme and shall apply to all resources administered by UNDP and to all the Funds and Programmes administered by the Administrator. They ensure acceptable levels of controls, as well as separation of duties. The new FRR are issued effective 1 January 2012 and govern the broad financial management of UNDP and the funds administered by UNDP, including the budgeting and accounting of resources. They have been updated to reflect the adoption of IPSAS and its terminology; and the revised harmonized cost classifications of the Joint report of UNDP, UNFPA and UNICEF on the road map to an integrated budget. Financial

reporting mechanisms for the Project will follow UNDP rules and procedures and will comply with the reporting requirements of the Donor.

Anti-corruption

UNDP applies the UN Convention against Corruption and strictly follows the UNDP Policy of Fraud and Other Corrupt Practices at the country level. UNDP will provide mandatory capacity building for project staff and personnel to ensure compliance with the UNDP M&E Rules and Regulations, including on anti-corruption. The last internal audit of UNDP Country Office in Moldova (2018) has been satisfactory and there were no corruption cases identified at UNDP Moldova.

All Project staff will undertake the UNDP mandatory training courses on anti-corruption and on ethics during the project inception phase.

Accountability of managers at the country level is prescribed in UNDP's Programme and Operations Policies and Procedures (POPP) and the Internal Control Framework (ICF).

Intellectual property rights and use of logo

Project materials, publications, print or digital deliverables will be branded by the relevant UNDP logo and typography (subject to corporate brand-book) and donor's logo. All intellectual products produced under the Project will be equipped with a standard UNDP intellectual property right disclaimer and, at discretion and agreement with donors may be placed into creative commons.

VII. RESULTS FRAMEWORK

Results Framework to assess management results on the basis of performance indicators is shown in the next table below.

Table X. Results Framework

Intended Outcome as stated in the UNDAF / Programme Results and Resource Framework: Outcome 3. The people of Moldova, especially most vulnerable, benefit from enhanced environmental governance, energy security, sustainable management of natural resources, and climate and disaster resilient development.			
Outcome indicators as stated in the Country Programme Results and Resources Framework, including baseline and targets: Output 3.2 improved national capacities for environmentally sound management practices in ecosystems, waste and chemicals.			
Applicable Output(s) from the UNDP Strategic Plan: 2.3.1 Data and risk informed development policies, plans, systems and financing incorporate integrated and gender responsive solutions to reduce disaster risk, enable climate change adaptation and mitigation and prevent risk of conflict			
Project title and Atlas Project Number: Supporting the Moldovan authorities in the sustainable management of the Dniester River			
EXPECTED OUTPUTS	**OUTPUT INDICATORS**	**DATA SOURCE**	**DATA COLLECTION METHODS & RISKS**
Output 1: National water related regulatory framework towards compliance with WFD is developed, consulted and handed over to the relevant state institution for adoption / approval.	- Number of Regulations developed and updates - Number of Regulations and updates delivered in due time Acceptance of the products by Client and PB	- Risk management chapters from project progress reports - Written notifications/ complaints of the Consultant to the Client. Minutes of the Consultant weekly staff meetings - Methodology Chapter by Consultant within the Inception Report. - Minutes of PB meeting on Methodology presentation and approval Minutes of Regulations/	Access to project reports, project progress reports. Barriers in access to raw data, lack of national capacity to cope with the WFD requirements.

		updates presentations' meeting	
Output 2: The 2nd Dniester RBDMPs is elaborated in accordance with the EU WFD and pertaining national normative base	- Minutes of Meetings on progress made in developing the Plan are agreed and signed by key decision makers and member of monitoring and supervision board (Project Steering Committee). - The 2nd Dniester RBDMP approved by Governmental Decision	- Minutes of meetings - Monitorul Oficial	Request for data information access. Low involvement of project counterpart: providing formal comments, late feedbacks, etc.
Output 3: Support provided to the water management authorities in sustainable management of Dniester River resources at national and international levels	- 4 key methodologies to define the state of the river Dniester are developed: minimum spring flow; effectiveness of spring river flow, damages in transboundary context of development of Hydropower, damages due to loss of ecological services	- Minutes of meetings, Certificate of approval and Delivery of methodologies (reports) to the client	Component 4 of the project encounter difficulties in implementation, the results providing is behind the schedule which affect the output 3 production.
Output 4: Group for negotiating the Agreement on the Functioning of the Dniester HPC is supported by relevant expertise, trainings, negotiating skills	The decision reached by commission are acceptable for Moldova	Protocols of meetings, draft papers of- and final decisions on Dniester HPC signed by parties.	The members of negotiating groups are not permanently available for training, consultations, etc.
Output 5: The responsibilities, functions, and staff structure of AAM are adjusted to comply with integrated water management needs	New staff structure of AM approved, and finance allocated.	Governmental Decision published in Official Gazette "Monitorul Oficial"	Financial support needed is not secured by the MoF Staff is insufficiently trained.
Output 6: Wide range of hydro-chemical data flow established	Station is installed and tested on site	Procurement Contracts, Financial documents	Budget to maintain the equipment is not secured.

and permanently received in automatic regime	Data publicly available on SHS website	Report of training of Hydrometeo Service staff conducted.	Staff is insufficiently trained to properly use the equipment
Output 7: Effectiveness of environmental releases assessed and objective criteria for making decisions about the optimal timing and hydrographs for spring discharge set.	Program of research is coordinated and agreed in due time with / by all responsible institutions.	Reports (Inception, Interim and Final)	Partners from Ukraine and Transnistrian region do not collaborate due to different reasons. The correlation between factors allowing to determine criteria for marking optimal timing and hydrograph discharge is not kought using "given probability of wrong assumption".
Output 8: Sampling program on Dniester, tributaries, and underground waters conducted and data obtained and analyzed.	Sampling program developed: sampling points established in accordance with the water bodies division and major towns. Sampling and sampling analysis is conducted Report prepared.	Records in Laboratory Registers of Data	Procurement of reagents fails because of prices for reagents is not stable, higher than planned. Monitoring institutions do not cooperate with each other.
Output 9: A study and a roadmap in establishing adequate legislation and institutions in fishery sector developed.	Report on existing situation prepared. Drafts for laws' and regulations' amendments developed.	Interviews with inspectors, fishermen's'. List of persons met, Results of express social survey. Statistics on number of pouching detected and fines issued.	Existing administrative barriers in sharing data and information amongst the actors from both banks of the River needed to develop the study and the roadmap. The counterpart institutions do not allocate enough working time to participate in common activities (meetings, brainstorming exercises, workshops). I

Output 10: Lower Dniester oxbow rehabilitation plan developed.	Feasibility Study, EIA and Detailed Design conducted DD prepared RFP package prepared	Reports DD documentation	Local communities are not happy with the proposed project idea (intervention - excavation during the future riverbed cleaning), removal of illegal dams.
Output 11. Practical measures for biodiversity rehabilitation implemented (subgrants).	Subgrants to NGOs		

VIII. MONITORING AND EVALUATION

In accordance with UNDP's programming policies and procedures, the project will be monitored through the following monitoring and evaluation plans: *[Note: monitoring and evaluation plans should be adapted to project context, as needed]*.

The project is subject to monitoring and evaluation in accordance with UNDP's programming policies and procedures. The Project will be monitored and evaluated as per Monitoring and Evaluation Plan presented in the table below

Monitoring Plan

Monitoring Activity	Purpose	Frequency	Expected Action	Cost (if any)
Track results progress	Progress data against the results indicators in the RRF will be collected and analyzed to assess the progress of the project in achieving the agreed outputs.	Quarterly, or in the frequency required for each indicator.	Slower than expected progress will be addressed by project management.	Project Management and Project Quality Assurance costs
Monitor and Manage Risk	Identify specific risks that may threaten achievement of intended results. Identify and monitor risk management actions using a risk log. This includes monitoring measures and plans that may have been required as per UNDP's Social and Environmental Standards. Audits will be conducted in accordance with UNDP's audit policy to manage financial risk.	Quarterly	Risks are identified by project management and actions are taken to manage risk. The risk log is actively maintained to keep track of identified risks and actions taken.	Project Management and Project Quality Assurance costs

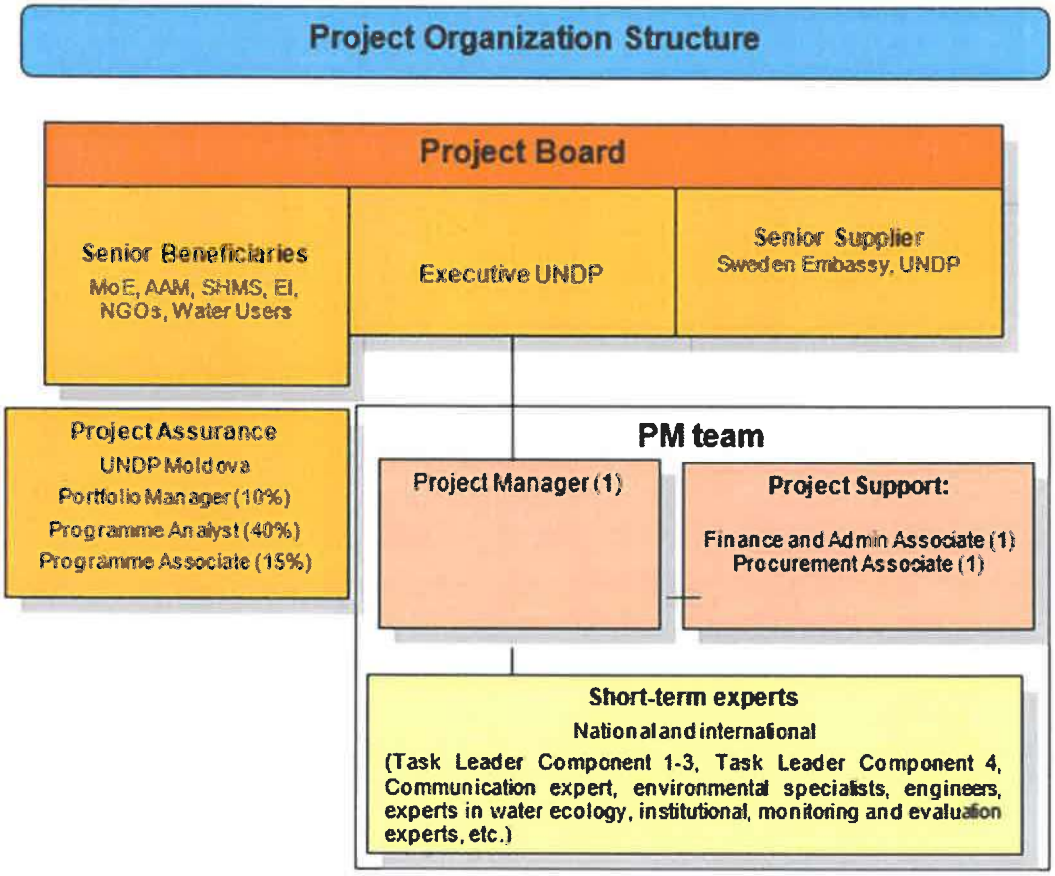
Learn	Knowledge, good practices and lessons will be captured regularly, as well as actively sourced from other projects and partners and integrated back into the project.	At least annually	Relevant lessons are captured by the project team and used to inform management decisions.	Project Management and Project Quality Assurance costs
Annual Project Quality Assurance	The quality of the project will be assessed against UNDP's quality standards to identify project strengths and weaknesses and to inform management decision making to improve the project.	Annually	Areas of strength and weakness will be reviewed by project management and used to inform decisions to improve project performance.	Project Management and Project Quality Assurance costs
Review and Make Course Corrections	Internal review of data and evidence from all monitoring actions to inform decision making.	At least annually	Performance data, risks, lessons and quality will be discussed by the PB and used to make course corrections.	Project Management and Project Quality Assurance costs
Project Report	A progress report will be presented to the PB and key stakeholders, consisting of progress data showing the results achieved against pre-defined annual targets at the output level, the annual project quality rating summary, an updated risk long with mitigation measures, and any evaluation or review reports prepared over the period.	Annually, and at the end of the project (final report)		Project Management and Project Quality Assurance costs

Project Review (Project Board)	The project's governance mechanism (i.e., PB) will hold regular project reviews to assess the performance of the project and review the Multi-Year Work Plan to ensure realistic budgeting over the life of the project. In the project's final year, the PB shall hold an end-of project review to capture lessons learned and discuss opportunities for scaling up and to socialize project results and lessons learned with relevant audiences.	Specify frequency (i.e., at least annually)	Any quality concerns or slower than expected progress should be discussed by the PB and management actions agreed to address the issues identified.	Project Management and Project Quality Assurance costs

Evaluation Plan

Evaluation Title	Planned Completion Date	Cost
Final Evaluation	1 August 2026	25,000 USD

IX. GOVERNANCE AND MANAGEMENT ARRANGEMENTS



Project Board (PB) will be responsible for making decisions, in particular when guidance is required by the PM. The Board will play a critical role in project monitoring and evaluations by assuring the quality of these processes and associated products, and by using evaluations for improving performance, accountability and learning. The PB will ensure that required resources are committed. It will also arbitrate on any conflicts within the project and negotiate solutions to any problems with external bodies. PB meetings are to be organized at least twice per year or to be convened upon necessity (as stipulated in the ProDoc). The PM is responsible for the organization of the Board Meetings, with the support of the assistant.

Specific responsibilities of the PB should include:

- Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;
- Address project issues as raised by the PM;
- Provide guidance on new project risks and agree on possible countermeasures and management actions to address specific risks;
- Agree on PM's tolerances as required;

- Review the project progress and provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans;
- Review combined delivery reports prior to certification by the implementing partner;
- Appraise the project's budget revisions, annual review report, make recommendations for the next annual work plan, and inform the outcome group about the results of the review;
- Provide ad-hoc direction and advice for exception situations when PM's tolerances are exceeded;
- Assess and decide to proceed on project changes through appropriate revisions

PB decisions shall be made in accordance with international standards that shall ensure management for development results, best value for money, fairness, integrity, transparency, and effective international competition. Members of the PB will consist of key national government representatives, UNDP senior official and other stakeholders and the donor Potential members of the PB will be reviewed and recommended for approval during the Local Project Appraisal Committee (LPAC) meeting. The final composition of the PB will be decided at the outset of project operations and presented in the Inception Report. New members into the Board or participants into the Board meetings during the project implementation can be invited at the decision of the Board, by ensuring, however, that the Board will remain sufficiently lean to facilitate its effective operation. The PB will contain of three distinct roles:

Executive Role: Representing the project ownership and chairs the PB.

Senior Supplier Role: This requires the representation of the interests of the funding parties for specific cost sharing projects and/or technical expertise to the project. The Senior Supplier's primary function within the Board will be to provide guidance regarding the technical feasibility of the project.

Senior Beneficiary Role: This role requires representing the interests of those who will ultimately benefit from the project. The Senior Beneficiary's primary function within the Board will be to ensure the realization of project results from the perspective of different stakeholders and beneficiaries.

Project Assurance: The Project Assurance role supports the PB Executive by carrying out objective and independent project oversight and monitoring functions which are mandatory on all projects.

The Project Assurance role supports the PB by carrying out objective and independent project oversight and monitoring functions. Project Assurance has to be independent of the PM; therefore, the PB cannot delegate any of its assurance responsibilities to the PM.

The following list includes the key suggested aspects that need to be checked by the Project Assurance throughout the project as part of ensuring that it remains consistent with, and continues to meet, a business need and that no change to the external environment effects the validity of the project:

- Ensure that funds are made available to the project;
- Ensure that risks and issues are properly managed and monitored, and that the logs are regularly updated;
- Ensure that Project Progress/Financial Reports are prepared and submitted on time, and according to standards in terms of format and content quality and submitted to the PB.

The Project Implementation Unit (PIU) will be established and will comprise of a PM, Finance and Administrative Associate and Procurement Assistant. The PIU will be headed by the PM who

will be recruited on a competitive basis. The PM will run the project on a day-to-day basis on behalf of UNDP within the constraints laid down by the Board. The PM's prime responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost. Development and consolidation of work plans, preparation of quarterly/annual progress reports, supervision the work of the project thematic experts, etc. are major responsibility of the PM. The terms of references for project management unit staff can be seen in the Annex 4.

X. LEGAL CONTEXT

This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement (SBAA) between the Government of Moldova and UNDP. All references in the SBAA to "Executing Agency" shall be deemed to refer to "Implementing Partner."

XI. RISK MANAGEMENT

1. UNDP as the Implementing Partner will comply with the policies, procedures and practices of the United Nations Security Management System (UNSMS).

2. UNDP as the Implementing Partner will undertake all reasonable efforts to ensure that none of the [project funds][18] [UNDP funds received pursuant to the Project Document][19] are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

3. Social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards (http://www.undp.org/ses) and related Accountability Mechanism (http://www.undp.org/secu-srm).

4. UNDP as the Implementing Partner will: (a) conduct project and programme-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the project or programme to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.

5. All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any programme or project-related commitments or compliance with the UNDP Social and Environmental Standards. This includes providing access to project sites, relevant personnel, information, and documentation.

6. UNDP as the Implementing Partner will ensure that the following obligations are binding on each responsible party, subcontractor and sub-recipient:

[18] To be used where UNDP is the Implementing Partner
[19] To be used where the UN, a UN fund/programme or a specialized agency is the Implementing Partner

a. Consistent with the Article III of the SBAA *[or the Supplemental Provisions to the Project Document]*, the responsibility for the safety and security of each responsible party, subcontractor and sub-recipient and its personnel and property, and of UNDP's property in such responsible party's, subcontractor's and sub-recipient's custody, rests with such responsible party, subcontractor and sub-recipient. To this end, each responsible party, subcontractor and sub-recipient shall:

i. put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;

ii. assume all risks and liabilities related to such responsible party's, subcontractor's and sub-recipient's security, and the full implementation of the security plan.

b. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the responsible party's, subcontractor's and sub-recipient's obligations under this Project Document.

c. Each responsible party, subcontractor and sub-recipient will take appropriate steps to prevent misuse of funds, fraud or corruption, by its officials, consultants, subcontractors and sub-recipients in implementing the project or programme or using the UNDP funds. It will ensure that its financial management, anti-corruption and anti-fraud policies are in place and enforced for all funding received from or through UNDP.

d. The requirements of the following documents, then in force at the time of signature of the Project Document, apply to each responsible party, subcontractor and sub-recipient: (a) UNDP Policy on Fraud and other Corrupt Practices and (b) UNDP Office of Audit and Investigations Investigation Guidelines. Each responsible party, subcontractor and sub-recipient agrees to the requirements of the above documents, which are an integral part of this Project Document and are available online at www.undp.org.

e. In the event that an investigation is required, UNDP will conduct investigations relating to any aspect of UNDP programmes and projects. Each responsible party, subcontractor and sub-recipient will provide its full cooperation, including making available personnel, relevant documentation, and granting access to its (and its consultants', subcontractors' and sub-recipients') premises, for such purposes at reasonable times and on reasonable conditions as may be required for the purpose of an investigation. Should there be a limitation in meeting this obligation, UNDP shall consult with it to find a solution.

f. Each responsible party, subcontractor and sub-recipient will promptly inform UNDP as the Implementing Partner in case of any incidence of inappropriate use of funds, or credible allegation of fraud or corruption with due confidentiality.

Where it becomes aware that a UNDP project or activity, in whole or in part, is the focus of investigation for alleged fraud/corruption, each responsible party, subcontractor and sub-recipient will inform the UNDP Resident Representative/Head of Office, who will promptly inform UNDP's OAI. It will provide regular updates to the head of UNDP in the country and OAI of the status of, and actions relating to, such investigation.

g. UNDP will be entitled to a refund from the responsible party, subcontractor or sub-recipient of any funds provided that have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the responsible party, subcontractor or sub-recipient under this or any other agreement.

Where such funds have not been refunded to UNDP, the responsible party, subcontractor or sub-recipient agrees that donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities under this Project Document, may seek recourse to such responsible party, subcontractor or sub-recipient for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document.

Note: The term "Project Document" as used in this clause shall be deemed to include any relevant subsidiary agreement further to the Project Document, including those with responsible parties, subcontractors and sub-recipients.

h. Each contract issued by the responsible party, subcontractor or sub-recipient in connection with this Project Document shall include a provision representing that no fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the proposal, have been given, received, or promised in connection with the selection process or in contract execution, and that the recipient of funds from it shall cooperate with any and all investigations and post-payment audits.

i. Should UNDP refer to the relevant national authorities for appropriate legal action any alleged wrongdoing relating to the project or programme, the Government will ensure that the relevant national authorities shall actively investigate the same and take appropriate legal action against all individuals found to have participated in the wrongdoing, recover and return any recovered funds to UNDP.

j. Each responsible party, subcontractor and sub-recipient shall ensure that all of its obligations set forth under this section entitled "Risk Management" are passed on to its subcontractors and sub-recipients and that all the clauses under this section entitled "Risk Management Standard Clauses" are adequately reflected, *mutatis mutandis*, in all its sub-contracts or sub-agreements entered into further to this Project Document.

XII. ANNEXES

Annex 1. Budget (attached)

Annex 2. Social and Environmental Screening Template (attached)

Annex 3. Key Project Staff Terms of References

Annex 3. Key Project Staff Terms of References

Core project team

Project Manager

Finance and Administrative Associate

Procurement Assistant

Short term experts

Communication Specialist

National Consultants (various positions)

Draft Terms of References for Key Project Staff are presented beneath. Detailed ToRs for project staff and consultants will be finalized and published during the inception phase of the project.

PROJECT MANAGER

Education and experience

- Master's Degree or equivalent in Law, public administration, water governance or closely related areas.
- Profound technical understanding and at least 4 years of practical experience in the field of transboundary water management and/or integrated water management
- At least 5 years of progressive working experience in the design, management and/or coordination of projects and/or working in a relevant position to this post.
- At least 4 years of experience in water governance development assistance or related work for a donor organization, governmental institutions, NGO or private sector / consulting firm is a very strong advantage.
- Experience of work in community engagement and support programmes and capacity building in the public sector will represent a very strong advantage.
- Experience in the usage of computers and office software packages (MS Word, Excel, etc) and advance knowledge of spreadsheet and database packages, experience in handling of web-based management systems.
- Strong leadership skills and proven experience in managing interdisciplinary teams
- Fluency in Romanian, Russian and English is required

Duties and responsibilities

The PM will have the responsibility to plan, oversee and ensure that the Project is

producing the expected results at the right time, to the right standards of quality and within the allotted budget.

- Plan the activities of the project and monitor progress against the initial quality criteria;
- Mobilize goods and services to initiative activities, including drafting TORs and work specifications;

- Build, motivate and lead a high performing team consisting of project personnel, expert consultants, etc. Undertake personnel performance appraisals and career development coaching at project level;
- Monitor events as determined in the Project Monitoring Schedule Plan, and update the plan as required;
- Manage requests for the provision of financial resources by UNDP, using advance of funds, direct payments;
- Monitor financial resources and accounting to ensure accuracy and reliability of financial reports;
- Responsible for preparing and submitting financial reports to UNDP on a quarterly basis;
- Manage and monitor the project risks initially identified, submit new risks to the PB for consideration and decision on possible actions if required; update the status of these risks by maintaining the Project Risks Log;
- Be responsible for managing issues and requests for change by maintaining an Issues Log;
- Prepare the Project Progress Report (progress against planned activities, update on Risks and Issues, expenditures) and submit the report to the PB and Project Assurance;
- Prepare the Annual Review Report, and submit the report to the PB;
- Prepare the AWP for the following year, as well as Quarterly Plans if required;
- Ensure wide dissemination and visibility of project achievements. Establish and manage mechanisms for exchange of information, experience and lessons learned at the local and national levels
- Maintain close coordination with project partners, ensure synergies, avoid overlaps in project implementation, collaborate with other donors working in the same area, provide information relevant to the project.

ADMINISTRATION AND FINANCE ASSOCIATE

Education and experience

- University Degree in economics, finance, accounting, law, public administration or other related field.
- At least five years of experience in administrative work, accounting/finance, economics, or other substantive area is required.
- At least three years of previous experience in development assistance or related work for a donor organization, consulting company, or NGO is compulsory. Previous experience with Sweden or UNDP projects is a very strong advantage.
- Experience in the usage of computers and office software packages (MS Word, Excel, etc) and advance knowledge of spreadsheet and database packages, experience in handling web-based management systems.
- Fluency in Romanian, Russian and English is required.

Duties and responsibilities

Administrative management

- Pro-actively contribute to day-to-day project implementation and ensure conformity to expected results and project work-plans;
- Provide support to national consultants in the implementation of their tasks for the achievement of project results (communication, contracts, agenda, etc);
- Maintain records on all project personnel and their respective status (time and attendance – if appropriate, etc.) in accordance with accepted policies and procedures;
- Arrange external and internal meetings (including the meetings of the PB, Technical level, as well as other relevant meetings etc.).
- Make pertinent logistical arrangements for the prompt and effective implementation of the programme activities;
- Collect project related information data
- Draft minutes of relevant project related meetings;
- Assume overall responsibility for administrative matters of a more general nature, such as registry and maintenance of project files and records;

Financial management

- Prepare requests for advance of funds and/or direct payments;
- Monitor budget expenditures and maintain a proper record of approved project budgets and their revisions;
- Prepare proposals for budget revisions;
- Prepare and submit expenditure and programme budget status reports;
- Respond to queries from UNDP with respect to financial aspects of the programme, liaise with UNDP appointed and external auditors wherever required;
- Prepare recurring reports as scheduled and special reports as required for budget preparations and audit;
- Advise and assist international advisors and national consultants on all aspects of allowances, travel claims and other financial matters and calculate payments due for claims and services;
- Draft minutes/evidences on evaluations related with public acquisitions at community level, financed by UNDP/EC and ensure full compliance with UNDP financial terms and conditions.
- If necessary, travel for control and auditing purposes to field projects and report on expended funds or incurred irregularities
- Undertake other financial and administrative tasks on an ad hoc basis.

PROCUREMENT ASSISTANT:

Education and experience

- University Degree in economics, finance, accounting, law, social sciences, public administration or other related field.
- At least four years of experience in administrative work, accounting/finance, economics, procurement or other substantive area is required.

- Previous experience in development assistance or related work for a donor organization, consulting company, or NGO is a very strong advantage.
- Experience in the usage of computers and office software packages (MS Word, Excel, etc) and advance knowledge of spreadsheet and database packages, experience in handling web-based management systems.

Duties and responsibilities

Procurement:

- Pro-actively contribute to day-to-day project implementation and ensure conformity to expected results and Project work-plans;
- Draft annual Project procurement plan and keep it up to date, as well as draft periodical procurement reports based on inputs from Project team;
- Organize procurement processes, including preparation and conduct of micro-purchases, RFQs, ITBs or RFPs, by drafting bidding/selection documents (or address direct invitations to submit offer), receipt of quotations, bids or proposals, their preliminary screening, participate at the negotiation of conditions of contracts, in full compliance with UNDP rules and regulations;
- Organizing procurement processes with respect to individual consultancy services (ICs, RLAs, Rosters), coordinate receipt of applications and financial proposals, their preliminary screening, participate at the negotiation of financial proposals or contract conditions in full compliance with UNDP rules and regulations;
- Draft contracts' packages for goods and services for management approval;
- Draw up and maintain evidence and monitoring of awards and contracts with project implementing partners, consulting organizations, contractors, etc.;
- Maintain records on national/international consultants and their respective status (contracts, ToRs, and attendance – if appropriate, etc.) in accordance with corporate policies and procedures;
- Maintain an assets and spare inventory including verification and transfer when required and provide inputs for corporate reporting on assets and inventory.