# Mid Term Review

# Enabling transboundary cooperation and integrated water resources management in the Dniester Basin

Final Report

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## Basic Project Information

| Project Information – Extended Drin Basin | |
|---|---|
| Project Title | Enabling transboundary cooperation and integrated water resources in the Dniester River Basin. |
| UNDP PIMS ID | 5269 |
| GEF ID | 9359 |
| MTR time frame and report | 21 April – 30 June 2019 |
| Country(ies) | Moldova and Ukraine |
| GEF Operational Focal Area/Strategic Program | International Waters |
| UNDP-GEF Technical Team | Water and Oceans |
| Project Implementing Agencies | UNDP IRH |
| Project Executing Partners | OSCE / UNECE |
| Project Partners | |
| Project Type | Full Size |
| Start Date – End Date | 24 July 2017 - 24July 2020 |
| Total Resources / GEF Allocated Resources | 21,415,000/1,950,000 |

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## Disclaimer

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# Acronyms and Abbreviations

| | |
|---|---|
| CIS | Commonwealth of Independent States |
| CSO | Civil Society Organisation |
| EECCA | Eastern Europe, Caucasus and Central Asia |
| EMBLAS | EU-UNDP Improving Environmental Monitoring in the Black Sea |
| ENVSEC | Environment and Security Initiative |
| EU | European Union |
| EUWI | European Union Water Initiative |
| FD | EU Floods Directive |
| FDI | Foreign Direct Investment |
| GDP | Gross Domestic Product |
| GEF | Global Environment Facility |
| ha | Hectare |
| ICPDR | International Commission for the Protection of the Danube River |
| IPCC | Intergovernmental Panel on Climate Change |
| IUCN | International Union for the Conservation of Nature |
| IW | GEF International Waters Focal Area |
| IW:LEARN | GEF International Waters Learning Exchange and Resources Network |
| IWRM | Integrated Water Resources Management |
| km | Kilometre |
| m | Metre |
| MD | Moldova |
| MSFD | EU Marine Strategy Framework Directive |
| NAP | National Action Plans |
| NGO | Non-Governmental Organisation |
| OSCE | Organization for Security and Co-operation in Europe |
| PPG | GEF Project Preparation Phase Grant |
| RBMP | River Basin Management Plan |
| SAP | Strategic Action Programme |
| SDG | Sustainable Development Goal |
| TDA | Transboundary Diagnostic Analysis |
| UA | Ukraine |

# 1 Executive Summary

## 1.1 Project Information Table

Table 1 Project Information for GEF-Dniester Project

| Project Title: | Enabling transboundary cooperation and integrated water resources management in the Dniester River Basin | | |
|---|---|---|---|
| GEF Project ID: | 9359 | PIF Approval Date | 23 February 2016 |
| UNDP Project ID: | 5269 | CEO Endorsement Date | |
| Country: | Moldova and Ukraine | Project Start date | 24 July 2017 |
| Region: | | Planned Closing date | 24 July 2020 |
| Implementing Agency | UNDP | Revised closing date | |
| Executing Partners | OSCE | GEF Focal Area: | International Waters |
| Project Partners | | | |
| **Project Financing** | **At CEO Endorsement (US$)** | **At Midterm Review (US$)** | |
| GEF financing | 1,950,000 | 1,950,000 | |
| UNDP contrib. | 300,000 | | |
| Governments | 3,000,000 | | |
| Other partners | 16,165,000 | | |
| Total Co-Fin | 19,465,000 | | |
| Project Total Costs | 21,415,000 | 21,415,000 | |

## 1.2 Project Description

The "GEF Dniester Project" consists of a full-sized project "Enabling transboundary cooperation and integrated water resources management in the Dniester River Basin" (PIMS 5269/ GEF ID 9359). The project was approved to start on 24 July 2017, however, operational activities commenced on 13 November 2017.[1]

The Dniester River rises in Carpathian Mountains in Ukraine near the border with Poland. It flows southeast where it forms the border with Moldova before entering fully into Moldova. It then passes through the Central Codrii hills in the Transdniestrian region before crossing back into Ukraine and emptying into the Black Sea through the Liman estuary. This places Moldova and Ukraine in the interesting positions of being both up-stream and down-stream states in the same water basin. This interesting position has helped shape the dialogue between the two countries.

The GEF Dniester Project is implemented by the United Nations Development Programme (UNDP) and executed by the Organisation for Co-operation and Security in Europe (OSCE), in cooperation with the United Nations Economic Commission for Europe (UNECE). OSCE serves as the co-Secretariat of the Dniester Basin Commission (DBC), the bi-lateral body

[1] Operational start date with cooperation agreement –UNDP-OSCE – Verified from an email from Almabek Demessinov (OSCE) to Eka Khukhia (OSCE), 13 November 2017, Subject: RE: draft letter of request - 1st instalment. The email confirms that the money is in the system and can be used as of 13 November 2017.

responsible for the implementation of the 2012 *Treaty between the government of the Republic of Moldova and the cabinet ministers of Ukraine on Cooperation in the field of Protection and sustainable development of the Dniester River Basin* (Dniester Treaty).[2]

The GEF Dniester Project objective is to support 'Integrated water resources management in the Dniester river basin to strengthen sustainable development, through the update of the TDA, development and endorsement of the SAP and initiation of its implementation,' and has been designed to deal with important water/environment issues within Moldova and Ukraine. The main components of the work are:

1. Development of a detailed situation analysis in the transboundary Dniester basin (TDA) and agreeing on the joint Strategic Action Programme (SAP). These will support the Republic of Moldova and Ukraine to implement the EU Water Framework Directive (EU Association Agreements signed in 2014 by both countries), the National Environment Strategies for the Republic of Moldova for the period 2014 -2023 and the National Environmental Policy Strategy of Ukraine to 2030,
2. Support to the transboundary management bodies, and to facilitate the national inter-sectoral and stakeholder dialogues, which fall under the obligations of the two states to implement the UNECE Water Convention on the Protection and Use of Transboundary Watercourses and International Lakes and the EU WFD,
3. Addressing the issue of water quantity taking into account the needs of various upstream and downstream stakeholders (working with the hydropower sector, water balance, addressing adaption to climate change) which are reflected in the National Adaptation Strategy for the Republic of Moldova (2014), and the bilateral Strategic Framework for Adaption to Climate Change in the Dniester River Basin (2015). Component 3 also implemented on-the-ground demonstration projects (fish and habitat conservation and riparian restoration) as well improving public awareness of issues in the basin (Dniester Day, Colours of Dniester, engagement of schools, amongst others).

The GEF Dniester Project is aligned in content, aims, and objectives, and supports the implementation of the Dniester Treaty. The Dniester Treaty provides the political framework for and defines the context of cooperation among the Dniester riparians along the entire length of its course.

This project builds upon "Dniester-I" (2004-2006), "Dniester-II" (2006-2007) and "Dniester-III" (2009-2011)[3] that facilitated development of the Dniester Treaty as well as the Dniester component of the project: EU Instrument for Stability-funded project Climate Change and Security in Eastern Europe, Central Asia and the Southern Caucasus" (implemented 2013 and 2017). In the framework of the ENVSEC Initiative, the OSCE and UNECE jointly worked

[2] Treaty between the government of the Republic of Moldova and the cabinet ministers of Ukraine on Cooperation in the field of Protection and sustainable development of the Dniester River Basin, signed in Rome 29 September 2012 (2012 Dniester Treaty). Ukraine ratified the Treaty on June 7, 2017, bringing the agreement into force. (Article 31). The treaty is in force for 5 years.

[3] Series of dialogue projects to promote cooperation lead by UNECE and OSCE.

with Moldova and Ukraine to develop the strategic framework[4] and the implementation plan[5] for adaptation to climate change in the Dniester Basin.

## 1.3 Project Progress Summary

Table 2: MTR Ratings & Achievement Summary Table for GEF Dniester Project[6]

| Measure | MTR Rating | Achievement Description |
|---|---|---|
| Project Strategy | N/A | The Project has strategically built upon previous cooperative projects to advance its goals and objectives. The Project developed 3 approaches to build cooperation depending upon Ukrainian ratification of the 2012 Dniester Treaty, which occurred in June 2017. The Project strategy aligned well with national interests, in particular, emphasizing requirement related to EU standards for monitoring and planning associated with EU WFD, and Nitrate Directive, and Flood Directive amongst others. There is a high level of country ownership and relevance as the Project advances EU assessment agreements, helps implement international commitments, and addresses national priorities – particularly for pollution and climate change adaptation strategies. The three components are well conceived focussing on i) technical knowledge through TDA development, ii) institutional support for national and bi-national (Dniester Basin Commission) forums, and iii) on the ground demonstration projects and building public awareness.<br>Furthermore, the project has emphasized communication and collaboration with other national and international projects including UNDP, World Bank, EU Delegations, FAO, ADA, SDC, amongst others. |

[4] OSCE/UNECE/ENVSEC (2015) Strategic Framework for Adaptation Climate Change in the Dniester River Basin.
[5] OSCE/UNECE/ENVSEC (2017) Implementation Plan for the Strategic Framework for Adaptation Climate Change in the Dniester River Basin.
[6] U-unsatisfactory; MU-moderately unsatisfactory; MS-moderately satisfactory; S-satisfactory; HS-highly satisfactory.

| | | |
|---|---|---|
| Progress Towards Results | **Objective:** To strengthen institutional cooperation and sustainable development, through the update of the TDA development and endorsement of the SAP and initiation of its implementation<br><br>**S** | The Project has advanced in all components promoting cooperation and trust building in the Dniester Basin. Notably, it has succeeded in bringing together a broad range of stakeholders that include national ministries, power producers and mine tailing operators, as well as academics and NGOs. It was strategic in developing a communication and stakeholder engagement strategy resulting in a high degree of transparency that has been an important catalyst in building trust between the two countries, between different interest groups within the countries. The Project has excelled in supporting the institutional development of the Dniester Basin Commission which has held 1 preparatory meeting and 2 official meetings; and its 5 Expert Working Groups which have held meetings and provided recommendations on a number of issues. In less than 2 years the DBC is functioning and operating as decision-making body as shown from the meeting minutes. The TDA is 90% complete, and the SAP process is being initiated through discussion on water operations at hydropower facilities and actions needed at mine tailings. It has hosted public awareness building events, including Dniester Day celebrations. Real-time hydrometric data is being shared and available on the internet (eg http://dnister.meteo.gov.ua/en) The PCU has engaged a conflict resolution specialist to provide dialogue training to the DBC. However, despite the achievements, there are some areas for further attention. In particular, the flood arrangements and procedures are behind, historical hydro-met data has not been placed on the data exchange platform, and the demonstrations projects (which have been reduced from 3 to 2) are slightly delayed. Overall, the project is slightly delayed due to initial start-up delays of 4 months, the TDA is taking longer than anticipated to complete. Hence, a 6-month no-cost extension is recommended at this mid-term review to make up for delays and to ensure sufficient time to realize outcomes and close the project. The progress to project objectives is considered "satisfactory" because the bulk of the delays at start-up were beyond the control of the PCU, and the positive advances made in promoting cooperation outweigh the relatively minor areas that are lagging. |
| | 1) Science-based consensus among the countries and key stakeholders on major transboundary problems of the basin<br><br>**MS** | The project is still in the process of finalizing the TDA which is 90% complete. There is a significant draft, and three supporting thematic papers on hydropower impacts, economic valuation, and mine tailings that are being edited. The TDA addresses EU assessment requirements, such as characterizations of water bodies, and environmental objectives. However, it requires a synthesis section to outline the key transboundary issues and causal linkages from the thematic papers summarized for decision-makers. A water balance has been developed, however, more work is needed in assessing future scenarios with respect to demand and climate change and the implications for transboundary issues.<br><br>Monitoring for nitrates to comply with the EU Nitrates Directive has been initiated and has identified several areas of loading. |
| | 2) Understanding current and future priority environmental issues, and their transboundary implications, including potential implications for security, by key basin stakeholders and the public. - **MS** | Data has been collected and flow maps being constructed. The water balance has been assessed based on projected climate change, but scenario modelling has not taken place. Training is planned for 2019 and then the system will be transferred to the ministries. |

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|---|---|---|
| | 3) Local stakeholders ready to minimize negative consequences for economic sectors as well as the environment in the basin.<br>**S** | The 1st SC meeting decided to focus on a "Feasibility Study for Climate Change Adaptation Project(s)" rather than a "Local Adaptation Strategy to Climate Change" due to the level of funding anticipated. The goal being to make bankable projects. The focus would be on Odesa as it is the most vulnerable to climate change. Potential funding sources have been identified: IKI, KfW and local and state ecological funds. |
| | 4) Strengthened environmental transboundary cooperation in the Dniester basin<br>**HS** | As per the 2012 Dniester Treaty, the DBC has been established, and over the past 14 months has met 3 times (1 preparatory meeting (April 2018) and two Commission meetings (September 2018 and April 2019). Expert working groups have been established in Ecosystems & Biodiversity; Planning Group; Strategic Group; Monitoring & Information Exchange; and Emergency situations. A new WG on Legal Issues is being established. EWGs have provided recommendations at the 2nd DBC meeting. The thematic paper on hydropower impacts, the independent assessment by an international expert, and the Strategic EWG have resulted in recommendations on operating rules being considered at the DBC. State enterprise of hydropower in Ukraine have been involved in discussions, working groups, and training. A conflict avoidance and dialogue specialist has assessed the DBC and provided training.<br>Of the 15 meetings held to date 36% of the participants have been women. |
| | 5) Agreed actions to address major transboundary problems of the Dniester basin (SAP) with an established collaborative mechanism for multi-country cooperation framework<br>**S** | Discussions surrounding the development of the SAP are beginning. Action items have been discussed particularly with respect to hydropower operating rule curves and tailing mine management. The specifics of the SAP are on the agenda for the next Commission meeting in September. |
| | 6) Involvement of stakeholders in the decision making processes of the Commission and its institutions<br>**HS** | There are a broad range of stakeholders involved in the Commission and its experts working groups. Including national and local government, civil society, the private sector, power producers, and academia. 3 meetings of national river basin councils have been held (2 in Ukraine (Nov 2018; May 2019)) with Moldovan participation; and 1 in Moldova (April 2019). Briefing document produced.<br>This project has not installed any information boards, but it is working on collecting necessary information and it is anticipated that installation will happen later this year or in early 2020.<br>"Eco-Dniester start-up" scheduled for August 2019 and is slightly behind. School Kayak trip conducted in July 2018 and is scheduled for July 2019. Dniester Day Celebrations in both Ukraine and Moldova in 2019 and 2020.<br>62% of the participants in the awareness building activities were women.<br>There has been effort placed on training and capacity development, particularly of DBC members, including study tour to examine Spain and Portugal, UNECE workshops and MoP. Twinnings have occurred with the Kura Basin and with Goulbourn-Broken Catchment in Australia. Beneficiaries will also take part in a sudy tour to the Estonian-Russian Peipsi/Chudskoye lake Commission (June 2019), a meeting of the International Network of Basin Organiations (Finland, June 2019) and the World Water Week (Stockholm, August 2019) |

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| | 7) Project experiences and lessons disseminated globally<br>**HS** | 1 experience note on Dniester-Kura Twinning (4-5 June 2018). Goulbourn-Broken twinning EN in draft form. A third "the Use of conflict resolution specialist", is planned for the end of the project. |
| | 8) Stronger information base and better accessibility of the relevant information in the Dniester basin for the joint management of water resources<br>**MS** | Agreement on procedures has not yet been developed but is being discussed in the WG on monitoring under the DBC.<br>The project is assisting the countries' requirements under the EU Flood Directive to develop Flood Protection Plan (6 yr process).<br>The ADA/SDC project is working in close co-operation with the project in Moldova to improve flood mapping. In Ukraine, consultations are being done with the EU funded APENA project. The Dniester project has facilitated the transboundary dialogue on flood issues, assisted with risk assessment and developing flood mapping. |
| | 9) A coordinated institutional and legal framework for access to and exchange of information from monitoring and other sources, including the use and further development of the Dniester basin GIS involving stakeholders from the whole basin<br>**MU** | A data exchange platform was operational under a previous OSCE/UNECE project. An agreement on data exchange procedures is being discussed in the WG on monitoring under the DBC but has not been agreed upon.<br>Although communication has been on-going between the hydromet agencies in UA and MD regarding the historical data, no historical data is on the platform as yet. However, other data is being exchanged, such as hazard assessment and water discharge from the Dniester HPC. http://dnister.meteo.gov.ua/en<br>There is a risk that the outcome will only partially be achieved. |
| | 10) Improved capacities for monitoring in the basin, and the partial implementation of the agreed monitoring and information exchange programme.<br>**MS** | The SC decided to have 2 demonstration projects. They are slightly behind, but not at risk of jeopardizing outcomes.<br>#1 Ecological restoration of Yagorlyk River. Meetings have been held to discuss with locals, community experts, and water authorities areas for wetland restoration. Preliminary results from the TDA were presented and field study carried out. An international expert is being looked for. Fieldwork is anticipated in 2020.<br>#2 Support of fish biodiversity in MD-UK lower Dniester. Activities are underway. Assessments for fish populations are being conducted, impacts of amateur-sport fishing spawning nets are being made for installation in January 2020. |

| | | |
|---|---|---|
| Project Implementation & Adaptive Management | **S** | The management arrangements are highly satisfactory with good communication and functioning Steering Committee (that meets regularly), implementing agencies and executing agencies have adequate communication. Planning is done through the SC input as well as DBC. There is a high level of transparency within the project that is appreciated by stakeholders. As of 31 March, 34% of the GEF grant has been dispersed. This low value at the mid-term can be accounted for in that the majority of the work to date has been related to meetings and dialogue, TDA compilation. The second half of the project will involve modelling and field work restoration, which will necessarily be more expensive. The PCU has encountered various political sensitivities associated with working in the basin; however, they have been able to negotiate these challenges including altering meeting agendas at the last minute which shows a high level of adaptive management skills. The GEF/Co-finance ratio is 1:10, and more effort is needed to confirm/assess co-financing projects are completed. Evaluation and monitoring are well carried out, as are the reporting and overall communication. Stakeholder engagement is highly satisfactory, as is building gender awareness. It has taken a very long time to develop an operating agreement with UNECE due to GEF-UNDP reporting requirements. Nevertheless, the PCU and UNECE counterparts have continued to operate illustrating a continued commitment to the process. |
| Sustainability | **L** | Sustaining the GEF Dniester Project outcomes is likely from a political view as there is support for implementing the 2012 Dniester Treaty, complying with commitments under the 1992 Convention on the Protection and Use of Transboundary Watercourses and international Lakes (1992 UNECE Watercourse Convention), and advancing assessment agreements with the EU, in particular, the water framework directive, the nitrates directive, and the flood control directive.<br>The principal risk to sustainability is financial in that it may require SAP implementation prior to the countries recognizing the full benefits of the Dniester Basin Commission to the extent that they are willing to finance a secretariat. The levels of investment for the SAP will likely require international assistance. |

## 1.4 Conclusions

Overall the GEF Dniester Project has advanced cooperation significantly in the region through strengthening the institutional mechanisms and promoting a culture of transparency (both bi-lateral and national), developing a common understanding of the key issues, and broadening meaningful participation of stakeholders. More specifically:

*Institutional development*: The 2012 Dniester Treaty came into force in June 2017 with its ratification by Ukraine. Under the Treaty the Dniester Basin Commission was to be formed six months after entry into force. The Project facilitated dialogue and discussions between the Parties, such that between April 2018 and April 2019 a preparatory meeting and 2 full meetings of the Commission were held. Moreover, to the extent possible, there has been involvement of Transdniestria in most aspects of the project which is a significant accomplishment considering the political situation within the region. Nevertheless, to maintain its involvement will be a continuing challenge. The Project has also facilitated the meetings of expert working groups in Ecosystems & Biodiversity; Planning Group; Strategic Group; Monitoring & Information Exchange; and Emergency situations which have reported to the DBC at their 2nd meeting in April 2019.[7] The institutional structure is evolving as a

[7] DBC (2019) Second Meeting of the Commission on Sustainable Use and Protection of the Dniester River Basin in Kyiv, 4-5 April 2019.

decision-making mechanism and has taken important steps to address some of the key basin issues. For example, the DBC is establishing an additional EWG on Legal issues to examine the legal status of the current operating rules of the Dniester HPC. And recently, Ukrhydroenergo's representative informed the DBC that all activities associated with the construction of the HPP cascade in the Upper Dniester (above the Dniester HPC) would be suspended until the completion of the strategic environmental assessment of the Scheme of Integrated Use of Hydropower Resources in Ukraine.[8]

The success of the new institutions can be attributed, in part, to the interest of the parties to implement EU Association Agreements, which were signed in 2014. However, some credit is due to the GEF-Dniester project which focused effort on building trust and developing a cooperative and collaborative environment for dialogue. Notably, the project has:

- 19 members of the DBC conducted a study tour to examine the experience of Spain and Portugal on transboundary water management under the Albufeira Convention." to review the implementation of the Albufeira Convention between Spain and Portugal. The tour included Ukrainian power producers. This occurred shortly after the 1st DBC meeting, and participants confirmed that this was an important step in helping to build relationships between the different commission members;
- promoted a culture of transparency, whereby communication with members of the Commission and expert working groups is open for all people to follow. Meeting notes and reports are all on the web and are open for public access. Real-time hydrographic data is available for parts of the river; and,
- engaged a Ukranian conflict avoidance and collaborative dialogue specialist to assist with the Commission process. It is recommended that this be continued and expanded with a second specialist from Moldova.

*Common understanding:* The Transboundary Diagnostic Analysis of the basin, builds upon on the previous analysis, particularly with regard to the three thematic papers. The TDA has helped advance the interests of the countries to identify and characterize waterbodies and develop environmental status with respect to the EU Water Framework Directive. However, it requires a section to tie in the knowledge detailed in the thematic papers and relate it to transboundary issues. One of the key issues in the basin is the operations of the Dniester Hydro-power Complex and its positive effects, such as power production and flood control, as well as negative effects, such as sediment retention and reduced peak flows in the lower Dniester River impacting the estuary. The use of neutral third parties to develop background documents[9] was strategically undertaken to help parties accept the results of the studies and investigations. The choice of developing a thematic paper on mine tailings helps to develop understanding and possible actions around one of the potential key sources of pollution in the basin, along with sewage and agriculture. Again, the ability of the Moldovan

[8] DBC (2019) Second Meeting of the Commission on Sustainable Use and Protection of the Dniester River Basin in Kyiv, 4-5 April 2019.

[9] Zoi Environmental Network facilitated the thematic paper on hydro-impacts; and Pedro Serra, an international consultant specializing in hydro operations, produced a detailed assessment and recommendations for operating rule curves. OSCE (2019) Thematic Report on Hydropower impacts in the Dniester Basin (Draft). Serra, Pedro (2019) Recommendations to the draft updated Regulations to operate the water reservoirs of the HPP and PSPP Dniester cascade (final version), February 2019.

government and NGOs to participate in meetings and surveys indicates the growing acceptance of information transfer and transparency between the countries. This is also exhibited with the April 2019 meeting of the Interdepartmental Commission that sets the flow parameters for spring releases of the Dniester HPC, and which was attended by the Moldovan government and NGOs following the 2nd DBC meeting.

*Stakeholder engagement:* The project advanced the inclusion of stakeholders in the decision-making process. The development of the stakeholder engagement strategy, outlining the communications and messaging in project implementation illustrates a proactive approach to including the various interest groups in the basin. Discussions with several NGOs confirmed that overall the project is making a concerted effort to include these groups in the process, such as ensuring participation at Commission meetings, inclusion in working groups and technical groups, and maintaining information and transparency with the dialogue process and documents. Likewise, the hydropower producers interviewed during this review confirmed the project's openness and transparency in including all perspectives with regard to hydropower generation in the basin. They also noted and appreciated the PCU for providing a non-biased third party platform to help initiate the discussions within the Commission.

Despite the successes, however, there remain a number of challenges for the project to overcome to realize all project outcomes. The process for determining operating rules within the Commission[10] will not be a straightforward task. An active adaptive management approach to determining operating rules has been suggested through this report. With respect to developing an agreement on the procedures for flood protection and early warning, the project has been able to facilitate transboundary discussions. However, it is questionable whether the countries will reach an approved framework for flood forecasting and warning within the timeframe of the project as the countries are pursuing their mandates under the EU Flood Directive, which lays out a 6 yrs process for developing a flood risk management and early warning system. Another challenge for the project will be developing an agreement on a data exchange procedure, for the existing data exchange platform. Interestingly, some real-time data is being made publicly available, for example at the Dniester HPC; however, overall the exchange of data envisioned at the onset of the project is not in place. The Working Group on Monitoring and Information will undoubtedly need additional support and focus in order to arrive at practical recommendations for the commission to consider. The pilot demonstration projects, while underway are unfortunately behind schedule. This is in part due to the Commission having its first meeting in September of 2018, as opposed to April when it could have decided upon pilot projects and initiated activities in that summer. Also, there is a lack of national experts regarding riparian restoration, and so time has been taken to find appropriate experts. This has resulted in compounded delays, for example, the restoration project on the Yagorlyk River is unlikely to have physical works completed in time to conduct a year of monitoring within the project.

The project strategy envisioned that more expensive activities would occur in the second half of the project such as the implementation of the demonstration projects, including physical works. Having only spent some 30% of the GEF allocated funds, there is ample

[10] Once approved by the Commission, the Regulations would be submitted for approval by the State Agency of Water Resources as required by the national legislation of Ukraine (1st Meeting of the Dniester Basin Commission).

room in the budget for increased attention to areas such as basin reservoir modelling, and additional support for working groups such as Monitoring and Information.

Overall, it can be concluded that the GEF-Dniester project is highly relevant for the two countries in terms of providing a platform to address issues of mutual concern, enhancing the capacity of the Dniester Basin Commission (resulting from the 2012 Dniester Treaty), and advancing their interests concerning the EU Association Agreements signed in 2014 in multiple areas. For the bulk of its activities, the Project has been effective in achieving its mid-term targets and is on its way to realizing project outcomes. Several areas, such as data exchange need increased attention, and the agreement on a flood early warning system may not be achieved. However, this should not undermine the overall project goals of improving the international institutional mechanisms and cooperation to move towards sustainable use and development in the Dniester Basin. Taking into account the previous work accomplished in the basin, the Project has used GEF funds in an efficient manner to move closer to achieving outcomes. It has done this through both attention to expenditure, but also through partnering with other projects.

## 1.5 Recommendation Summary Table

Table 2: Summery Table of Recommendations

| | |
|---|---|
| 1 | The project should have a no-cost extension of 6 months until 31 December 2020 to ensure sufficient time for the outcome impacts to be fully realized. The reasoning for this includes i) a delay of 4 months in starting project activities due to integrating accounting systems and bureaucratic processes within the implementing and executing agencies; ii) ensuring sufficient time to close the project (2-3 months). Based on the release of funds to date, it is reasonable to assume that there will be sufficient funds to continue until the recommended date.<br><br>It should additionally be recommended for any future projects that the "start-up time" be incorporated into the planning phase and that it would be 3 months in duration. |
| 2 | The SAP development should be started as soon as possible and not wait for the TDA to be fully completed. Several of the key problems and causal effects have been identified, such as water flow regulation and pollution from mine tailings, and these should form the initial focus of the SAP. |
| 3 | The following changes to the Logical Results Framework should be considered:<br><br>1. The Project Objective should be expanded to read "To strengthen institutional cooperation and sustainable development, through the update of the TDA development and endorsement of the SAP and initiation of its implementation". The project focusses on improving sustainable development through the strengthening of the institutional architecture within the basin.<br><br>2. Under the Project Objective, the end of project target should be changed to "MD/UA approve the ~~initiating implementing actions agreed in~~ SAP and progressing with finalizing EU RBMP". It is overly ambitious to place as a target the implementation of SAP actions, rather it should be that the SAP is |

"approved" as the measurement of success.

3. Under Project Objective the mid-term targets for the "Operational bi-national river authority" should include "Expert WGs established", the end target should include "EWGs make recommendations for SAP". The targets should include functioning and effective EWGs.
4. Under Outcome 1, 3 – the PSC changed the activity from developing "local climate change adaptation strategy" to a "feasibility study for local adaptation projects".[11] The Mid-term and end of project targets should reflect this accordingly. The mid-term target should read "The ~~strategy~~ feasibility study is developed ……." And the end of project target should read "at least 2 funding sources are found for implementing feasible projects", and "15 private sector organisations are involved".
5. Under Outcome 2 there should be an end of project target "3 scenarios for future water demand and climate change modelled". Different future water use projections with climate change will help decision-makers understand the implications of current water use planning in the basin.
6. Under outcome 4 the final target should be "Rules for the exploitation of Dniester reservoirs ~~agreed upon~~ are discussed in the DBC with an agreed process for finding a solution". It may be too ambitious to have determined operating rules for the Dniester HPC, rather a process and timeline for arriving at an acceptable solution within the Commission (that includes adaptive management) should be agreed upon.
7. Outcome 6 – the targets for stakeholders related to "increased % over the baseline" should be removed, as the baseline is zero. The following should be the mid-term target: Number and variety of sectors of stakeholder organisations involved, and the end of project target should be: Meaningful (sufficient and consistent) multi-sectoral stakeholder involvement in basin councils and DBC. The main goal of stakeholder involvement in decision making is to provide a broad perspective of interests and expertise to enhance decision-making.
8. Outcome 6 – the end of project target should read "3 meetings of the National River Basin councils".
9. Under outcome 8 – the end of project target should read "~~Approved~~ Recommended framework for flood forecasting and early warning", and "Warning procedures adopted tested for use by bi-national river authorities", and a new one added, "Flood Hazard Maps and Flood Risk Maps approved (for EU-FD Flood Protection Plan)." It is ambitious to have an approved framework for flood forecasting and early warning within the timeframe of the project, the EU indicates a 6 year process which the countries are following.
10. Outcome 9 – the mid-term and end of project targets for the pilot demonstration projects should be changed from 3 to 2. As the SC decided to reduce the number.

[11] 1st PSC Meeting Minutes.

| | |
|---|---|
| 4 | To help facilitate agreement regarding operating rules of the Dniester HPC, the project should consider:<br>• Researching a trade-off table illustrating the positive and negative effects of various operating rules on key values of concern for the DBC, such as flood control, power generation, minimum dry season flow, peak flow, sediment load, etc. The trade-off table will be of support for decision making<br>• Proposing an active adaptive management approach to the operating rules such that a reviewed and evaluated "test set" of the operating rule be established for 5 years, with key values monitored. After 5 years a review is made of the operating rules. This does not "lock" reluctant stakeholders into fixed operating rules, and more knowledge will be known regarding the effect of operating rules on the core values. |
| 6 | An analysis by the Legal Expert Working Group should be conducted regarding the "decision-making" format of the DBC under the 2012 Dniester Treaty, and to clarify who and how decisions are made and if they can be made more effectively. Effective decision making in other river basin commissions should be researched. |
| 7 | To advance data exchange under outcome 9 the project should consider a data and information capacity building workshop for the DBC and EWG on Monitoring. It should also look at different levels of access to information by third-parties etc. and who should be able to access which data. |
| 8 | To avoid delays in project activities due to differences between project partners' financial and reporting systems administrative agreements between partners should be developed within the first 3-6 months of the project. In this regard the project should prioritize the OSCE/UNECE agreement on activities to ensure continued implementation. |
| 9 | The project SC could consider requesting an internal audit in line with OSCE Financial Regulations and Rules. This would cover aspects of financial accounting and management not covered under this review. |
| 10 | Due to the complex nature of the region, it is recommended to continue with the use of a conflict avoidance and collaborative dialogue specialist. However, to ensure a balanced approach both a Ukrainian and a Moldovan specialist should be used. |
| 11 | In general, the project has been very successful in engaging local consultants and experts. In areas with political sensitivities, such as legal assessments, for example, the project should engage both a Ukrainian and a Moldovan expert to ensure a balanced perspective is taken. In cases where this is not possible an international expert should be found. |

# 2 Introduction

## 2.1 Purpose of the MTR

This MTR covers the "Enabling transboundary cooperation and integrated water resources management in the Dniester River Basin" – PIMS 5269/GEF-9359,[12] and follows the basic path designed in the UNDP MRT Guide.[13]

The MTR objectives are:[14]

i. Assessment of progress towards the achievement of the projects' objectives and outcomes as specified in the Project Documents;
ii. Assessment of early signs of projects' success or failure with the goal of identifying the necessary changes to be made in order to set the project on-track to achieve its intended results; and,
iii. Review of the projects' strategy, and the risks to sustainability.

## 2.2 Scope & Methodology

The review covers the time period between the initiation of the Project (24 July 2017) and April 2019, approximately 20 months into the project. The MTR covers all activities undertaken within the framework of the project and compare planned project outputs and outcomes to actual/achieved outputs and outcomes, and determine their contribution to the attainment of Project objectives.

The MTR evaluates the effectiveness and efficiency of Project management, including the delivery of outputs and activities in terms of quality, quantity, timeliness and cost efficiency. The MTR determines the likely outcomes and impact of the Project in relation to the specified Project goals and objectives.

As per the MTR Inception Report[15] the review followed a mixed methods approach[16], combining qualitative and quantitative data collection simultaneously, and employing triangulation to compare information on outcomes, impacts and other key indicators from different independent sources.[17] The bulk of the review was evidenced based on quantitative data from documents and websites, but was complimented by qualitative data from interviews to i) support quantitative results and ii) fill in gaps which quantitative data did not (or could not) adequately capture.

[12] TOR for Enabling transboundary cooperation and integrated water resources management in the Dniester River Basin Midterm Review, as of April 2019.
[13] UNDP-GEF (2014) Guidance for Conducting Mid-term Reviews of UNDP Supported, GEF Financed Projects (http://web.undp.org/evaluation/documents/guidance/GEF/mid-term/Guidance_Midterm%20Review%20_EN_2014.pdf)
[14] See Section 3
[15] Hearns (2019) Inception Report – Draft – MTR for GEF Dniester Basin Project, 23 April 2019.
[16] UNDP. (2013). *Innovations in Monitoring and Evaluating Results* United Nations Development Programme, 5 November 2013 Retrieved from: http://www.undp.org/content/undp/en/home/librarypage/capacity-building/discussion-paper--innovations-in-monitoring--evaluating-results/
[17] Bramberger (2012).

Documents reviewed under this MTR are in Annex G. A field mission was conducted between 20- to 28 April to meet with implementing agencies, executing agency staff, beneficiaries and stakeholders (Annex E). In total, 27 interviews were conducted covering 30 people (Annex F).

The MTR has extracted lessons learned, diagnose and analyse issues of concern and formulated a concrete and viable set of recommendations. Wherever possible, the MTR report indicates staff members and entities responsible for implementing recommendations and respective timeframes.

The MTR also assess the financial expenditure of the project and looks at average costs to deliver activities on an activity level and component basis. It does not constitute a financial audit. It also, assess the extent of co-financing that has been leveraged.

# 3 Project Description and Background Context

## 3.1 Development Context

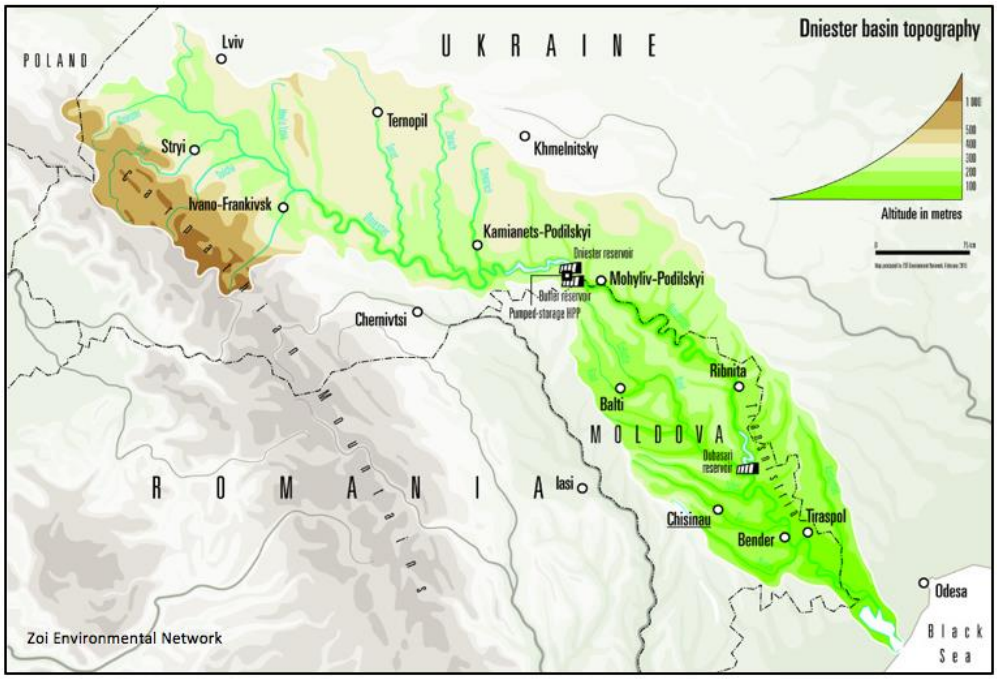
The Dniester Basin is located western Ukraine and eastern Moldova. The river rises in Carpathian Mountains in Ukraine near the border with Poland. It flows southeast where it forms the border with Moldova before entering fully into Moldova. It then passes through the Central Codrii hills in the Transdniestrian region before crossing back into Ukraine and emptying into the Black Sea through the Liman estuary. It covers a relatively small territory in Ukraine, 8.9 %, and a large portion of Moldova, 57%. It is the 9th largest river in Europe.

Between 1954 and 1983 large infrastructure had been established in the river, including Dubasari Reservoir (1954 / 48 MW), and the Dniester HEPP-I dam (1983 / 702MW)[18] and the Dniester 2 dam[19] (1983 /27 MW) 20 km below Dniester HEPP-I. It was later installed with a generating facility in 1987.[20] During that time a pump storage power scheme was conceived to create to pump water from the Dniester 2 reservoir to a storage reservoir at low demand periods and release it at high demand periods through a power station. The project was initiated in 1988 but halted in 1991 with the dissolution of the Soviet Union. Post-1991, the Dubasari Reservoir is now in the Transdniestria region of Moldova, and the Dniester l dam and reservoir are in Ukraine; however, the Dniester 2 dam and part of the reservoir are shared by both Moldova and Ukraine. The Ukrainians installed a 2nd and 3rd turbines in Dniester 2 by 2002. In 2001 Ukraine commenced the development of the pump scheme constructing the storage reservoir and power station entirely on Ukrainian territory. Between 2009 and 2015 the Ukrainian Hydro-Energy Administration installed 3 turbines at the pump storage power plant (PSPP) which currently has 924 MW installed capacity.[21] There are plans for 4 more turbines bringing the PSPP capacity to 2268 MW and to increase the size of the Dniester 2 reservoir to accommodate greater pump-storage-power generation. This, however, requires the approval of Moldova as part of the reservoir exists on its territory.

[18] Dniestrovski 1 HPP
[19] Dniestrovski 2 HPP
[20] TDA Thematic Report of Hydropower Impacts (2019).
[21] Serra, Pablo (2019) Recommendations to the draft updated Regulations to operate the water reservoirs of the HPP and PSPP Dniester cascade (final version), February 2019. Available at https://dniester-commission.com/wp-content/uploads/2019/02/Recommendations_operation-rules_Dniester_Serra_Feb2019_Engl_fin_clean.pdf

The Dniester is an important source of drinking water in the region due to limited groundwater reserves,[22] and is the main source of drinking water for Moldova and supplies Chisineau, amongst others.[23] Agriculture and channelization in the surrounding areas have reduced water flow significantly resulting in the drying streams. While currently there is limited irrigation, it is the only economically feasible agriculture possible in the lower reaches of the Dniester (Odesa Region) and there are plans to increase it.

Figure 1: Dniester Basin




History of Cooperation

Since 1994 the border portion of the Dniester River is regulated by the Agreement between Ukraine and the Republic of Moldova on Joint Use and Protection of Cross-Border Waters. The institution of Plenipotentiaries and a number of working groups under the Agreement have been meeting,[24] although not regularly.[25]

The 1994 agreement has several supplementary agreements which implement it:

- Regulation on the Ukrainian-Moldovan Cooperation on Water and Environmental Monitoring and Control of Water Quality
- Regulation on Stakeholder Participation in the Activities of the Institution of Plenipotentiaries under the Agreement between the Government of the Republic of Moldova and the Government of Ukraine on the Joint Use and Protection of Border Waters, which were adopted on 19 December 2007 (page 44)

[22] UNDP (2017) Project Document for "Enabling transboundary cooperation and integrated water resources management in the Dniester River Basin" (ProDoc).
[23] Ibid.
[24] Ibid.
[25] Personal communication with the interviewee.

- Regulation on the Ukrainian-Moldovan Cooperation on Flood Protection at the Border and Inland Waters
- Regulation on Measures in Case of Dangerous and Extraordinary Pollution of Border Rivers That Cannot Be Avoided

Between 2004 and 2011 under the framework of the "Environment and Security" Initiative (ENVSEC) a number of projects were carried out jointly by the UNECE, the Organization for Security and Cooperation in Europe (OSCE) and the United Nations Environment Programme (UNEP) to advance cooperation between the two countries on water resource management implemented the "Dniester-I" (2004-2006), "Dniester-II" (2006-2007) and "Dniester-III" (2009-2011) projects.[26]

The Protocol on Intentions on Cooperation on Environmental Improvement of the Dniester River Basin was signed in 2005 and basin councils were created which operate in coordination with the Plenipotentiaries.

In 2012 the countries signed the Treaty between the government of the Republic of Moldova and the cabinet ministers of Ukraine on Cooperation in the field of Protection and sustainable development of the Dniester River Basin (Dniester Treaty).[27] This included provisions to establish the Dniester Basin Commission (DBC), the bi-lateral body responsible for the implementation of the Treaty. The Treaty was ratified in January 2013 by Moldova, and later by Ukraine in June 2017.

The GEF Dniester Project also builds upon the Dniester component of the EU Instrument for Stability-funded project "Climate Change and Security in Eastern Europe, Central Asia and the Southern Caucasus" which was implemented between 2013 and 2017.[28] The endorsement of the "Strategic Framework for Adaptation to Climate Change in the Dniester River Basin" by Moldova and Ukraine in April 2015 has been one of the major outputs of this project.[29] Also, the project produced the "Implementation Plan for the Strategic Framework for Adaptation to Climate Change in the Dniester River Basin".[30]

## 3.2 Problems that the project sought to address[31]

The environmental threats and root causes of challenges which were identified in the Project Document, have been confirmed by the work done to date on the TDA and continue to remain salient.

- **Water regime and hydropower**: The Thematic TDA Paper on Hydropower Impacts[32] confirms the causal analysis regarding

[26] UNDP (2017) Project Document for "Enabling transboundary cooperation and integrated water resources management in the Dniester River Basin" (ProDoc).
[27] Treaty between the government of the Republic of Moldova and the cabinet ministers of Ukraine on Cooperation in the field of Protection and sustainable development of the Dniester River Basin, signed in Rome 29 September 2012 (2012 Dniester Treaty). Ukraine ratified the Treaty on 7 June 7 2017, bringing the agreement into force. (Article 31). The treaty is in force for 5 years.
[28] EU Climate Change and Security Project.
[29] UNDP (2017) Project Document for "Enabling transboundary cooperation and integrated water resources management in the Dniester River Basin" (ProDoc).
[30] (https://www.osce.org/secretariat/366721)
[31] UNDP (2017) Project Document for "Enabling transboundary cooperation and integrated water resources management in the Dniester River Basin" (ProDoc).
[32] TDA Thematic Paper on Hydropower impacts (2019).

- **Sediment transport –** with the construction of the Dubasari reservoir on (1955) approximately 90% of the sediment load was intercepted which began to affect the Delta in the lower Dniester. The sediment load remains unchanged below the Dubasari dam, regardless of the water releases through the dam facilities, and currently are 3-6 times lower than before regulation.[33]
- **Flow alterations –** Despite having a minimum flow and conducting peak releases, the regulation has altered the timing and extent of highflows thus impacting riparian communities particularly in the lower Dniester. Daily fluctuations are also believed to have impacts immediately below the Dniester hydro complex.[34]
- **Temperature regime** of the river immediately below the Dniester hydro-complex is largely affected by the intake structure of the dam which is at a depth 43 meters at full pool. There is as much as temperature reduction by 7 $^{o}$C in June.
- The **water acidity** in the buffer reservoir is approximately 0.5 pH less than upstream. It rises to 8.3 pH again before entering the Dubasari reservoir.
- **Oxygen level** is altered by taking water at the lower portions of the Dniester I dam, but are improved below Dniester II due to turbulence.
- **Aquatic communities** (see biodiversity). The dams reduced the water velocity, increased transparency that provided greater vegetation and macrophyte development. Also, changes to the macroinvertebrate communities, plankton, and effects on ichtyofauna (altering migration, changing the population dynamics).
- A number of flood-protection dams and dykes, and modifications to the riverbeds have also altered the natural river flow and habitats.

- **Floodig and periodic droughts**. Water resources scarcity from climate change and extreme weather is observed impacting both surface and groundwaters.
- **Water quality**: The water quality is mainly impacted by agriculture, industry, mining, and sewage.
  - One of the key issues outlined in the paper on mine tailings ponds is that acid mine drainage is a serious problem in the upper watershed in Ukraine.
  - Both countries suffer land degradation due to poor agricultural practices, for example, ploughing to the bank margins, misuse of fertilizers and pesticides, disregard of crop rotation, which ultimately results in nutrient and chemical pollution of the river.
  - Inadequate wastewater treatment - There are, however, areas of macrophytes due to waste water which have reduced the oxygen levels.[35]
  - Discharges from livestock sites, municipal and illegal waste sites further impact the water quality.

[33] TDA Thematic Paper on Hydropower impacts (2019).
[34] Serra, Pablo (2019) Recommendations to the draft updated Regulations to operate the water reservoirs of the HPP and PSPP Dniester cascade (final version), February 2019. Available at https://dniester-commission.com/wp-content/uploads/2019/02/Recommendations_operation-rules_Dniester_Serra_Feb2019_Engl_fin_clean.pdf
[35] TDA

- **Loss of biodiversity**: One of the main factors affecting biodiversity is the regulation of the Dniester River which has greatly altered riparian and flood areas, particularly the delta system in the lower Dniester. Overfishing (sport fishing, illegal fishing), nutrient pollutions are among other reasons such as:
    - Invasive species, such as thorns, now dominate the fish populations in many areas.
    - Increased macrophyte growth has resulted in a loss of lithophilic and psammophilic spawning grounds.
    - Gravel extraction – has resulted in the loss of habitat and spawning areas for 4 endangered species in the lower Dniester.
    - Illegal/inadequate regulated fishing.
- **Drying of Rivers**: Climate change, channelization from agriculture and loss of riparian zones have resulted in reduced water flow at critical times of the year.
- **Climate Variability and Change** (a cross-cutting issue that impacts all of the above).

In addition to the biophysical problems associated with development in the basin, the project sought to enhance the institutional structure of cooperation in the basin. The Dniester I-III projects set the stage for the development of a larger cooperative framework that was available under the initial 1994 agreement. It was not known at the onset of the project that Ukraine would ratify the 2012 agreement. The project document outlines several strategies to address cooperation under different scenarios. In the case of the Dniester Basin, the sustainable management of water resources and the protection of the integrity of ecosystems and of the services they provide require an integrated transboundary basin-wide approach. The policy and legislative levels continue to remain inadequate to achieve this; however, this is evolving, particularly with the development of the Dniester Basin Commission. Consequently, one of the problems the project has addressed has been capacity development of government staff and stakeholders within the region.

The key barriers identified in the Project Document were:

- Political and economic instability in the states,
- Low capacity of some local authorities,
- Low prioritization of the environment on the state agenda,
- Weak involvement of the majority of water users in transboundary river basin cooperation,
- Lack of modern legal framework for inter-state river basin cooperation (note this has been remedied by the 2012 Treaty).

## 3.3 Project Description

The “GEF Dniester Project” consists of a full-sized project “Enabling transboundary cooperation and integrated water resources management in the extended Dniester River

Basin" (PIMS 5269/ GEF ID 9359). The project was approved to start on 24 July 2017, however, operational activities already commenced on 13 November 2017.[36]

The Dniester River rises in Carpathian Mountains in Ukraine near the border with Poland. It flows southeast where it forms the border with Moldova before entering fully into Moldova. It then passes through the Central Codrii hills in the Transdniestrian region before crossing back into Ukraine and emptying into the Black Sea through the Liman estuary. This places Moldova and Ukraine in the interesting positions of being both up-stream and down-stream states in the same water basin. This interesting position has helped shape the dialogue between the two countries.

The GEF Dniester Project is implemented by the United Nations Development Programme (UNDP) and executed by the Organisation for Co-operation and Security in Europe (OSCE), in cooperation with the United Nations Economic Commission for Europe (UNECE). OSCE serves as the co-Secretariat of the Dniester Basin Commission (DBC), the bi-lateral body responsible for the implementation of the 2012 *Treaty between the government of the Republic of Moldova and the cabinet ministers of Ukraine on Cooperation in the field of Protection and sustainable development of the Dniester River Basin* (Dniester Treaty).[37]

The GEF Dniester Project objective is to support 'Integrated water resources management in the Dniester river basin to strengthen sustainable development, through the update of the TDA, development and endorsement of the SAP and initiation of its implementation,' and has been designed to deal with important water/environment issues within Moldova and Ukraine. The main components of the work are:

1. Development of a situational analysis in the transboundary Dniester basin (TDA) and agreeing on the joint Strategic Action Programme (SAP). These will support the Republic of Moldova and Ukraine to implement the EU Water Framework Directive (EU Association Agreements signed in 2014 by both countries), the National Environment Strategies for the Republic of Moldova for the period 2014 -2023 and the National Environmental Policy Strategy of Ukraine to 2030. Specifically:
    - Development of the Transboundary Diagnostic Analysis (TDA, an analogue of the description of the status of the river basin according to Article 5 of the EU Water Framework Directive);
    - Assessment of the impact of the Dniester on the Black Sea;
    - Assessment of the impact on the water quantity and quality in transboundary sections (including groundwater);
    - Analysis of nitrate and phosphorus pollution (under the Nitrates Directive);
    - Follow-on development of the automated water balance system;
    - Inventory of tailing dams in the Dniester Basin (under the Mining Waste Directive);
    - Development of projects for adaptation to climate change in the Odesa region.

[36] Operational start date with cooperation agreement –UNDP-OSCE – Verified from email from Almabek Demessinov (OSCE) to Eka Khukhia (OSCE), 13 November 2017, Subject: RE: draft letter of request - 1st instalment. The email confirms that the money is in the system and can be used as of 13 November 2017.

[37] Treaty between the government of the Republic of Moldova and the cabinet ministers of Ukraine on Cooperation in the field of Protection and sustainable development of the Dniester River Basin, signed in Rome 29 September 2012 (2012 Dniester Treaty). Ukraine ratified the Treaty on 7 June 2017 bringing the agreement into force. (Article 31). The treaty is in force for 5 years.

2. Support to the transboundary management bodies, and to facilitate the national inter-sectoral and stakeholder dialogues, which fall under the obligations of the two states to implement the UNECE Water Convention on the Protection and Use of Transboundary Watercourses and International Lakes and the EU WFD. Specifically:
    - Development of a joint bilateral action plan (SAP) for the Dniester River Basin (analogous to the elements of the basin management plan under the EU Water Framework Directive);
    - Support of the work of the national basin councils and the bilateral (Moldova-Ukraine) Dniester Basin Commission;
    - Work on hydropower issues in the Dniester Basin (including the development of recommendations for the updated draft rules for the operation of the Dniester reservoirs).
3. Addressing the issue of water quantity taking into account the needs of various upstream and downstream stakeholders (working with the hydropower sector, water balance, addressing adaption to climate change) which are reflected in the National Adaptation Strategy for the Republic of Moldova (2014), and the bilateral Strategic Framework for Adaption to Climate Change in the Dniester River Basin (2015). Specifically:
    - Support of the joint monitoring and data sharing;
    - Flood risk determination;
    - Demo projects (including river restoration);
    - Awareness raising (Dniester Day, art contest “Colours of the Dniester”, joint expeditions, etc.)

The GEF Dniester Project is aligned in content, aims and objectives, and supports the implementation of the Dniester Treaty. The Dniester Treaty provides the political framework for, and defines the context of, cooperation among the Dniester riparians along the entire length of its course.

This project builds upon the "Dniester-I” (2004-2006), "Dniester-II” (2006-2007) and "Dniester-III” (2009-2011)[38] that facilitated development of the Dniester Treaty as well as the Dniester component of the EU Instrument for Stability-funded project “Climate Change and Security in Eastern Europe, Central Asia and the Southern Caucasus (EVNSEC) (between 2013 and 2017). In the framework of the ENVSEC Initiative, the OSCE and UNECE jointly worked with Moldova and Ukraine to develop the strategic framework[39] and the implementation plan[40] for adaptation to climate change in the Dniester Basin.

[38] Series of dialogue projects to promote cooperation lead by UNECE and OSCE.
[39] OSCE/UNECE/ENVSEC (2015) Strategic Framework for Adaptation Climate Change in the Dniester River Basin.
[40] OSCE/UNECE/ENVSEC (2017) Implementation Plan for the Strategic Framework for Adaptation Climate Change in the Dniester River Basin.

# 4 Main Findings

## 1.1 Timing and project duration

The GEF Dniester Project was initially scheduled to start on 1 May 2017.[41] However, the official start date was 24 July 2017 with a revised end date of 24 July 2020. Operational activities did not commence until UNDP had transferred funds to OSCE, which occurred on 13 November 2017.[42] The project is still set to end on 24 July 2020. It is recommended that there be a 'no-cost extension' of 6 months in order to i) make for in light of the operational start-up being 4 months after approval, and ii) allow for 2 months time for close-out and financial reporting.

## 4.1 Implementation Arrangements

### 4.1.1 Project Coordination

The project is implemented by the UNDP Regional Centre for Europe and executed by the OSCE Secretariat in Vienna through its Field Operations in Kiev (Ukraine) and Chisinau (Moldova). The Head of the Environmental Co-operation Unit, Senior Environmental Affairs Adviser of the OCEEA (Vienna) is the GEF Focal Point for the Dniester project and co-ordinates all necessary substantive, administrative, managerial, financial arrangements (with administrative assistance in Vienna). The Project Coordination Unit (PCU) consists of a Regional Project Coordinator (Kiev), National Project Coordinator for Ukraine (Kiev), National Project Coordinator for Moldova (Chisinau), part-time financial and administrative assistant from the OSCE Project Co-ordinator in Ukraine. Additionally, the PCU has hired a part-time communication and stakeholder engagement consultant.

There is close cooperation with UNECE and builds upon the relationships developed under the Dniester I-III and EU Climate Change and Security projects. Consequently, there is a very good communication and cooperation linkage between the executing agency and it's executing partner.

The PCU reports to the Steering Committee (SC) once per year. SC reports are prepared by the PCU and approved by the SC.

The Steering Committee for the project consists of the main beneficiaries from each of the countries:

- Project Steering Committee Advisory and Guidance Panel (National Coordinating Body of 3 national officials, including one holding the rank of deputy minister with the authority to approve the implementation of this project);[43]
- 2 representatives of the Ministry of Agriculture, Regional Development and Environment of the Republic of Moldova (including the project focal point);

[41] UNDP (2017) Project Document for "Enabling transboundary cooperation and integrated water resources management in the Dniester River Basin" (ProDoc).
[42] Verified from an email from Almabek Demessinov (OSCE) to Eka Khukhia (OSCE), 13 November 2017, Subject: RE: draft letter of request - 1st installment. The email confirms that the money is in the system and can be used.
[43] The project focal point is not considered to be part of this group (1st meeting of the SC).

- 2 representatives of the Ministry of Ecology and Natural Resources of Ukraine (including the project focal point);
- Apele Moldovei (Plenipotentiary under the 1994 Agreement);
- 2 representatives of the State Water Agency of Ukraine (Plenipotentiary under the 1994 Agreement),
- UNDP (Istanbul, Moldova, and Ukraine);
- OSCE (OCEEA/Vienna and representatives of the Project Coordination Unit – on a regular basis, representatives of the OSCE Field Operations in Moldova and Ukraine when a PSC meeting is held in a respective country),
- UNECE,
- Other invited participants at the discretion of the PSC.

The location of the bulk of the PCU in Kyiv was chosen due to:

- Ease of communications from Kyiv to all parts of the basin,
- Ukraine needs additional assistance with transposing key EU Directives (Moldova has already initiated the required activities and is more advanced),
- The majority of the basin (74%) lies in Ukraine,
- Close co-operation with the hydro-power operators was viewed as important due to the significance of agreeing upon operational rules for the Dniester Hydropower Complex.

### 4.1.2 Main Stakeholders

The main stakeholders of the project(s) are identified in various documents, including the Stakeholder Analysis and Mapping Document[44], and include for example:

Table 3 Key stakeholders in the Dniester Basin

| | National level | Local Level | NGO/Academia/Private |
|---|---|---|---|
| Moldova | Apele Moldovei, Moldovan Hydromet; Ministry of Agriculture, Rural Development and Environment; Geological service of Moldova | Apa-Canal (Chisinau water intake & sewage company; RegionalMunicipalities, regional gov. | Eco-TIRAS; Biotica, Insitute of Ecology and Geography, Institute of Zoology |
| Ukraine | Ministry of Environment and Natural Resources; SAWR; Ukrainian Hydromet; Geological service of | Infoxvodokanal (Odesa water intake and sewage company); Municipalities, regional gov. | National Ecological Centre of Ukraine (NECU) / Kyiv and Odesa State Ecological University; Centre for Regional Studies; Institute of Hydrobiology / |

[44] DRIN Corda (2015) Stakeholder Analysis and Stakeholder Mapping. (Supplied by GWP).

| | | |
|---|---|---|
| | Ukraine | Urkhydroenergy; Ukrhydroproject; Rozdil State Mining and Chemical Enterprise; Stebnyk Mining and Chemical Enterprise "Polimineral"; DTEK Zakhidenergo; PJSC "Naftokhimik Prykarpattia"; OJSC "Oriana-EKO" |

### 4.1.3 Country ownership

The 2012 Dniester Treaty illustrates commitment from both Moldova and Ukraine to operate for the protection and integrated management of the Dniester River. The Treaty came into force in 2017 with the ratification by Ukraine. Prior to this, the countries signed the *Agreement between the Government of the Republic of Moldova and the Government of Ukraine on Joint Use and Protection of Cross-boundary Waters* (Chisinau, 1994) – which addressed water concerns where the Dniester formed the border. Moreover, both countries are a party to the *Convention on the Protection and Use of Transboundary Watercourses and International Lakes* (Helsinki, 1992) – which underscores cooperation of transboundary waters and was the underpinnings for the 2012 Dniester Treaty.

The project further supports the countries implementation of the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention) and, and in the case of Ukraine, the Convention on the Protection of the Black Sea against Pollution (Bucharest Convention).

At the national level, Moldova and Ukraine are in the process of adapting their environmental and water legislation to harmonise with the EU as agreed on in their respective Association Agreements. Consequently, there is interest to adopt or to align their regulations towards the Chapter 27 and in particular EU Directive 2000/60 EC establishing a framework for community action in the field of water policy (Water Framework Directive), but also:

- Flood Directive 2000/60 / EC;
- Directive 91/676/EC concerning the protection of waters against pollution caused by nitrates from agricultural sources (Nitrates Directive);
- Directive 2006/21/EC on the management of waste from the extractive industries;
- Directive 2008/56/EC establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive); and,
- Directive 2007/60/EC on the assessment and management of flood risks (Floods Directive).

### 4.1.4 Relation and interaction with other donors (Synergistic and catalytic activities)

The project has made use of previous and existing projects to enhance the achievement of project outcomes and sustainability. It has built on the success and knowledge gained with the Dniester I-III projects and has developed relations with donors, such as the Swiss. The project maintains regular contact with UNDP offices and EU delegations in both countries. Additionally, the PCU communicates with a variety of regional and national projects including:

- World Bank (Moldova),
- FAO (Ukraine),
- GIZ
- EU EUWI + (project experts participated in the workshop on 15 March 2018 and discussed how to harmonize the TDA of the Dniester in accordance with the WFD requirements for the Analysis of the Dniester River Basin.)[45]
- EU PPRD-East
- UNDP (MD and UKR)
- EU\UNDP Black Sea project EMBLAS
- GEF Nitrate Pollution Project (global)
- EUWI+ (regional)
- EU Apena project (Ukraine)
- ADA/SDC project on basin management (MD)

Perhaps most significantly, the PCU has developed ties with the UNDP project "The Dniester Hydro Power Complex Social and Environmental Impact Study"[46] which is focused on conducting an internal assessment for Moldova of the impacts associated with the existing and proposed extension of hydropower facilities in Ukraine at the Dniester Hydro Power Complex (Dniester HPC). UNDP project staff have attended the Working Group on Hydropower Impacts (WG-Hydro) set up by the Dniester GEF project. Recently, the DBC re-emphasized the importance of cooperating and exchanging information with the project.[47]

It also noted that to avoid duplication of activities coordination should occur with:

- Project eMS BSB 165 "Creating a system of innovative transboundary monitoring of the transformations of the BLACK SEA river ecosystems under the impact of hydropower development and climate change" – HYDROECONEX.
- EU/UNDP project "Improving Environmental Monitoring in the Black Sea."

In developing the economic valuation report on the lower delta, the project has co-operated with ADA / SDC Ecosystem-based adaptation, climate-resilience measures and institutional development in the Lower Dniester area project (Moldova, NGO Biotica Ecological Society).

### 4.1.5 Gender and Equity

The project conducted a gender analysis of the national policy framework, institutional structure, legal and regulatory framework, and non-governmental sector; and subsequent gender strategy for the project.[48] The strategy was informed by GEF, UNDP and OSCE policies and guidelines.[49] The strategy focuses on ensuring women have equal input as men for the management of the Dniester. Specifically, the strategy focuses on advancing women's opportunities during stakeholder engagement, and building awareness of gender issues at public awareness raising events like Dniester Day.

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[45] https://www.euwipluseast.eu/en/component/content/article/159-all-activities/activites-armenia-6/news-of-ukraine/281-promoting-cross-border-cooperation-and-integrated-water-resources-management-in-the-dniester-river-basin-in-moldova-and-ukraine-2?Itemid=397

[46] Project # 00109119; implementing partner, Ministry of Agriculture, Regional Development and Environment; duration 1 September 2018 to 30 August 2019. Funded by the Swiss Embassy in Moldova.

[47] DBC (2019) Second Meeting of the Commission on Sustainable Use and Protection of the Dniester River Basin in Kyiv, 4-5 April 2019.

[48] OSCE (2017) Gender Survey and Gender Mainstreaming Strategy

[49] Gender and Environment: A Guide to the integration of gender aspects in the OSCE's environmental projects, OSCE, 2009

The project has maintained disaggregated Data for meetings and events. Of the 15 meetings which have taken place approximately 36% of the participants have been Women. Of importance to note Kona is the high participation rate of women in technical meetings such as the meeting on mines tailings (57%)[50] at TDA working group meeting (52%).[51]

In terms of the public engagement events such as the Dniester basin art contest-Colours of the Dniester, and the summer school events such as kayaking, there has been a higher rate of women participation at 62%.

## 4.2 Project Strategy

### 4.2.1 Project Design

The primary concerns addressed by the Project Document remain salient. The countries of the basin continue to face problems associated with the altered hydrographic regime, water pollution from wastewaters and mine tailings, flooding, nitrification, amongst others. The project is designed around three central themes.

**Component 1** is understanding the situation through the development of a TDA, focusing on water balance, nutrients and including elements and climate change (particularly implementation of the strategic action plan for climate change for the Dniester basin in the respective National sections of the basin); and extending knowledge of the influence of the Dniester into the Black Sea, though developing linkages with the UNDP EMBLAS.

**Component 2** centres on implementation and decision-making through the support of the bilateral Dniester Commission, under the 2012 Dniester treaty, empowering the national basin councils, providing capacity building through twinning and trainings, and addressing the issues are surrounding hydropower and water distribution. One of the key products of this component will be the SAP.

**Component 3** focuses on information and data exchange, through practical means such as monitoring, developing demonstration projects for replication throughout the basin, raising public awareness and appreciation for the issues, and developing an exchange mechanism for data.

The three Central themes are well integrated and logical with respect to achieving the overall objective of supporting integrated water resources management in the Dniester basin.

As outlined in the Project Document and confirmed by the TDA section on hydro-power impacts, the effect of the Dniester HPP is one of the main concerns impacting the environment downstream. Hence, it receives a good deal of attention in the project, which is not always seen as balanced by some of the Commission members. It is anticipated that more attention will be placed on other issues such as pollution, nitrate monitoring, and ecosystems and biodiversity in the Second half of the project now that some monitoring has been able to occur.

[50] WG-Tailings (2018) Kick-off meeting to study the current status of tailing dams of the Dniester River Basin in Ivano-Frankivsk, Ukraine, 2 July 2018.
[51] WG-TDA (2018) Meeting of experts on the development of TDA / elements of the joint Dniester RBMP in Kyiv, 26 July 2018.

The project has done an admirable job on developing a process whereby outputs, and activities, resulting in intermediate states of cooperation achieved will advance the achievement of longer-term outcomes. For example, the emphasis placed on developing capacity and awareness at the Commission and working group levels will help to develop a solid base of cooperation into the future. The project also builds upon the previous experience of cooperation between the Ukraine and Moldova in the basin in such a way as to use GEF funds to incrementally advance cooperation in strategic areas such as institutional development and stakeholder involvement, while at the same time ensuring the project's relevance to a broader political and public interest in the countries by advancing the 2014 EU Association Agreements, particularly under the Water Framework, Flood, and Nitrate directives.

## 4.3 Results Framework

The Strategic Results Framework for the GEF-Dniester project is fairly well conceived, separating out the key components, with their respective outcomes and outputs, each with relevant indicators and targets (Annex I). The indicators, for the most part, follow the application of SMART principles. There are several points to reconsider (red denotes proposed changes):

1. The Project Objective should be expanded to read "To strengthen institutional cooperation and sustainable development, through the update of the TDA development and endorsement of the SAP and initiation of its implementation". The project focusses on improving sustainable development through the strengthening of the institutional architecture within the basin.
2. Under the Project Objective, the end of project target should be changed to "MD/UA approve the ~~initiating implementing actions agreed in~~ SAP and progressing with finalizing EU RBMP". It is overly ambitious to place as a target the implementation of SAP actions, rather it should be that the SAP is "approved" as the measurement of success.
3. Under Project Objective the mid-term targets for the "Operational bi-national river authority" should include "Expert WGs established", the end target should include "EWGs make recommendations for SAP". The targets should include functioning and effective EWGs.
4. Under Outcome 1, 3 – the PSC changed the activity from developing "local climate change adaptation strategy" to a "feasibility study for local adaptation projects".[52] The Mid-term and end of project targets should reflect this accordingly. The mid-term target should read "The ~~strategy~~ feasibility study is developed ……." And the end of project target should read "at least 2 funding sources are found for implementing feasible projects", and "15 private sector organisations are involved".
5. Under Outcome 2 there should be an end of project target "3 scenarios for future water demand and climate change modelled". Different future water use

[52] 1st PSC Meeting Minutes.

projections with climate change will help decision-makers understand the implications of current water use planning in the basin.

6. Under outcome 4 the final target should be "Rules for the exploitation of Dniester reservoirs ~~agreed upon~~ are discussed in the DBC with an agreed process for finding a solution". It may be too ambitious to have determined operating rules for the Dniester HPC, rather a process and timeline for arriving at an acceptable solution within the Commission (that includes adaptive management) should be agreed upon.
7. Outcome 6 – the targets for stakeholders related to "increased % over the baseline" should be removed, as the baseline is zero. The following should be the mid-term target: Number and variety of sectors of stakeholder organisations involved, and the end of project target should be: Meaningful (sufficient and consistent) multi-sectoral stakeholder involvement in basin councils and DBC. The main goal of stakeholder involvement in decision making is to provide a broad perspective of interests and expertise to enhance decision-making.
8. Outcome 6 – the end of project target should read "3 meetings of the National River Basin councils".
9. Under outcome 8 – the end of project target should read "~~Approved~~ Recommended framework for flood forecasting and early warning", and "Warning procedures adopted tested for use by bi-national river authorities", and a new one added, "Flood Hazard Maps and Flood Risk Maps approved (for EU-FD Flood Protection Plan)." It is ambitious to have an approved framework for flood forecasting and early warning within the timeframe of the project, the EU indicate a 6 year process which the countries are following.
10. Outcome 9 – the mid-term and end of project targets for the pilot demonstration projects should be changed from 3 to 2. As the SC decided to reduce the number.

## 4.4 Risks to Project

Section 2.5 of the project document deals with risks and mitigation strategies. Section outlines the main risks, in particular, the lack of appropriate participation in the project of Transdniester, which is of significant importance considering a big part of the river basin in Moldova lies in that territory. The project suggests mitigating this through cooperation with the working group between Chisinau and Tiraspol on environmental issues. Considering the political sensitivity of the issue using an existing body is one of the very few instruments which may be relatively called effective. The project has invested a good deal of time and effort to involve Transdniester to the process – both at Commission at expert levels.

## 4.5 Progress Towards Result

### 4.5.1 Progress towards outcomes analysis

In assessing the results to date, this report assumes an operational start date of 13 November 2017 or 19 months of project activities. Overall, there has been a significant level of achievement, particularly when considering the political framework of the region.

One of the most significant achievements of the project has been the strengthening of institutional structure for the Dniester River Basin Commission (DBC) defined under the 2012 Treaty:

- The DBC has been established with regular meetings of the parties. The DBC has been active in bringing clarity to the legal regimes, for example during the preparatory meeting it clarified that "1994 *Agreement between the Ukrainian Cabinet of Ministers and Moldovan Government on joint use and protection of the transboundary waters* remained in force as regards solving the water management issues in the border area of the Dniester River, as well as in the Danube basin and the Black Sea rivers' basins. In case of any contradictions emergence, the 2012 Dniester Treaty shall prevail in the Dniester basin.[53] In the 1st Meeting of the Commission, they developed their Rules of Procedure[54] that are available from the Commission website.[55]
- The DBC has established working groups in Ecosystems & Biodiversity; Planning Group; Strategic Group; Monitoring & Information Exchange; and Emergency Situations. Each group has approximately six people. The working groups are making practical and technical recommendations, for example:
    - The working group on Planning and management (including hydro impacts) has participated in 6 meetings (2 joint meetings[56]) with various stakeholders and recommended the "Moldova's participation in monthly meetings of the Interdepartmental Commission on the water flow regime - such negotiations/coordination should, if possible, be elevated to bilateral ones (Moldovan-Ukrainian) as well as suggesting peak spring flows should be 500-700m3/s every 2-3 years.
    - The working group on planning and management has discussed tailings twice, the first time was a national level meeting in the Ukraine[57] and the second included experts from Moldova[58] to discuss the findings of the sites surveyed in July.[59]
    - The Working group on Ecosystems & Biodiversity will meet in July 2019 to discuss the river restoration project.[60]
- Secretaries of the Commission were established, which include the Head of the International Projects Coordination Department at the Ministry of Environment and Natural Resources of Ukraine and a representative of Apele Moldovei .
- The DBC has close links to the project SC as many members sit on both. The DBC has been active in requesting activities, such as Twinning with other basins, convening of Working Groups, commissioning studies.
- The DBC has been able to raise other environmental issues, for example, concerns raised by the Ukrainians regarding ash and slag produced by Moldovan power generating units and waterlogging of Cuciurgan and Limanskoye towns is to be addressed through a separate dialogue as a result of discussions at the Commission.

[53] DBC (2018) Preparatory Meeting of Commission on Sustainable Use and Protection of the Dniester River Basin in Chisinau, 5th April 2018
[54] DBC (2018) First meeting of the Commission on Sustainable Use and Protection of the Dniester River Basin in Chisinau, 17 September 2018
[55] https://dniester-commission.com/en/joint-management/dniester-commission/
[56] 18-19 June 2018 & 14 September 2018.
[57] 2 July 2018
[58] 25 January 2019
[59] WG-Tailings (2018) Kick-off meeting to study the current status of tailing dams of the Dniester River Basin in Ivano-Frankivsk, Ukraine, 2 July 2018.
[60] WG-Restoration (2018) River restoration meeting (demo-project) in Kyiv, 13 September 2018

- The DBC agreed to hold Dniester days in alternating countries.
- The DBC has a well functioning project website www.Dniester-commission.com
- Notably, the project has engaged a conflict resolution and dialogue specialist with experience working in the Eastern Ukraine, amongst others, to help build capacity for a constructive engagement at the Commission level. She attended the Second DBC Meeting in April 2019 and then met separately with the different delegations to review her observations and develop suggestions.
- The National Dniester Basin Council for Ukraine met once in November 2018 and had the participation of Moldovan participants.
- The Ukrainian Water Authority chairs an inter-sectoral group (hydropower, fisheries, meteorological, etc.) which makes decisions on the operations of the Dnipro and Dniester reservoirs. They have invited the participation of Moldovan ministry staff and members of the DBC to attend their decision making meetings. For example, a meeting was held following the second DBC in April 2019. This underscores the move towards developing transparency and collaboration in the process.

The project has had good success in involving stakeholders from relevant ministries, NGOs, academia and the private sector from hydropower operators and tailing management facility operators, including:

- Urkhydroenergy
- Ukrhydroproject
- OJSC "Oriana-EKO"
- PJSC "Naftokhimik Prykarpattia"
- PJSC "DTEK Zakhidenergo"
- Rozdil State Mining and Chemical Enterprise "Sirka"
- PJSC "Stebnyk Mining and Chemical Enterprise "Polimineral"

The project has developed a second draft of a TDA,[61] and three associated thematic papers: 1) on the impacts of hydropower[62], 2) an ecosystem valuation assessment of the Dniester delta[63] and inventory of tailing mines. The TDA, along with the thematic papers covers a substantial part of the technical issues in the basin. In undertaking the TDA the project has:

- Identified and characterized water bodies in both Moldova and Ukraine, including groundwater aquifers.
- Conducted joint surveys in over 60 basin sections to help develop baseline and reference conditions for comparison and setting ecological targets.
- Then identified the main types of anthropogenic loads and their effects to enable ecological goals to be set in the SAP.
- Conducted surveys to identify nitrate sensitive areas, including soil types, livestock numbers, level of sewage treatment, amongst others. This monitoring continues and supports requirements under the EU Nitrate Directive.
- In assessing tailing dumps, 12 site visits were conducted with 8 enterprises, have developed communication materials, and are finalizing a thematic report. Notably, in

[61] OSCE (2019) Trans-Diagnostic Analysis of the Dniester Basin, Draft 1, 22 March 2019.
[62] OSCE (2019) Thematic Report on Hydropower impacts in the Dniester Basin (Draft). Lead by Zoi Environmental Network.
[63] Zakorchevna, N. (2019) Assessment of Ecosystem Services in the Lower Dniester Basin, DRAFT 7 May 2019

working with the public enterprises they were able to identify and survey several sites that the Ministry of environment did not know existed.

The TDA emphasizes the reporting associated with EU reporting requirements, in terms of water body characterization and achieving status or meeting environmental objectives. While this helps serve the national interests related to the EU, it falls short in highlighting the specific transboundary aspects of the issues and their causes. The TDA will need an overarching synthesis section to draw together the information in the Draft TDA and the conclusions of the various thematic papers into a form that is digestible for politicians and decision-makers. Section 2.1 "Cross border problems and their causes" requires more detail, particularly with respect to the impacts. In general, section 2 needs greater attention to causal-chain analysis and impacts. For example, section 2.2.5 on hydropower notes that regulation has altered the flow regime however, it does not discuss the effects of that alteration, such as impacts on sedimentation, which makes the water clearer increasing macrophage growth which in turn reduces oxygen levels and alters water chemistry, as described in the Thematic paper on hydropower. Also, how nitrates further impact plant growth and poor oxygen levels placing pressure on certain endemic fish.

Section 7 of the TDA, climate change, does a good job at describing the implications of flooding, however, does not relate the implications of droughts as well as it could. The section could be improved by adding information and maps from the "Strategic Framework for Adaptation Climate Change in the Dniester River Basin".[64] Section 7 should be expended to identify the implications for current transboundary problems. For example, if river water temperature is already an issue due to hydropower, then how will that be compounded by an estimated 1.5$^{o}$C rise by 2050[65] then what are the additional implications on water temperature, or increased rate of growth of plants, etc. This will help identify what may be areas to prioritize actions for in the SAP-those issues likely to be most negatively affected by climate change may need more attention.

Consequently, the TDA is about 85%-90% complete.

The project has made remarkable efforts to address the issue of river regulation due to hydropower. In addition to convening a special working group on the topic, the project hired a consultant, Pedro Cunha Serra, to review current operations and make recommendations on the flow regime (operating rules for the Dniester HPC). They have been able to engage Urkhydroenergy the operator of the Dniester HPC facilities, and Ukrhydroproject, the engineering institute who attended the expert working group on Planning and Management (discusses hydropower), as well as the Commission meetings. This is a major achievement as it provides real opportunities for the Commission to develop actions which could have a significant impact on the health and sustainable development of the river. They have also helped facilitate learning through the translation of the ICPDR publication "Sustainable Hydropower Development in the Danube" into Ukrainian for the power authorities and operators.

The project has also begun determining the water balance in the Dniester River which will be integrated into planning and SAP. To date, zonings have been updated and data has been collected with flow maps developed. Water balance future scenarios have not yet been

[64] OSCE/UNECE/ENVSEC (2015) Strategic Framework for Adaptation Climate Change in the Dniester River Basin.
[65] RCP8.5 scenario. Draft 2 TDA, section 7.

assessed, and how they would be affected by climate change. This is expected in the latter half of the project.

Activities on adaptation to climate change in the lower Dniester basin are being developed based on the Action Plan created in 2017.[66] They have developed TORs for consultants, overall plan for implementation of the activities and started conduction of questionnaires with local communities with the assistance of UNECE and are exploring possible funding through local and national funds, IKI or KfW. The SC decided that the local adaptation strategy should be changed to "Feasibility Study for Climate Change Adaptation Project(s)". It also reconfirmed that focus would be on the Odesa region in Ukraine, as the most vulnerable region to climate change in the river basin.

The project also organized a study tour for 19 DBC members to Spain and Portugal to examine operations of the hydropower facilities along the transboundary rivers between the countries, and how the countries benefit from water management under the Albufeira Convention. The tour also included staff from Urkhydroenergy, as so was useful on a very technical level. The tour, by all accounts, was a very useful experience in developing trust and building relationships within the Commission.

The project also organized a study tour for DBC Chairs to the Murray-Darling basin, Australia, in May 2019, and has succeeded in developing two information write-ups that are shared on its web-site.[67]

Transparency within the Commission and within the expert working groups is considered very good by all of those interviewed. This is an extremely important factor when dealing with the complex political situation through which the Dniester River runs.

The project has advanced knowledge and awareness of the Dniester River and the issues surrounding its sustainable development. The project has continued many of the activities developed under the Dniester I-III projects, including a Dniester Summer School and kayak trip in July 2018 which included participation of students, teachers, NGOs and journalists from Moldova; the Dniester Day celebrations; and the “Colours of the Dniester” which is an art contest for young artists, writers and project ideas.

[66] OSCE/UNECE/ENVSEC (2017) Implementation Plan for the Strategic Framework for Adaptation Climate Change in the Dniester River Basin.
[67] https://dniester-commission.com/en/news/water-management-in-australia-sharing-experience

Table 4 Progress Towards Results Matrix (Achievement of outcomes against End-of-project Targets) – Suggested changes in RED

| Indicator Assessment Key | Green= Achieved | Yellow= On target to be achieved | Red= Not on target to be achieved |
|---|---|---|---|

| Project Strategy | Indicator | Baseline | PIR | Mid-term targets | End of Project Targets | MT Level | Rating | Justification |
|---|---|---|---|---|---|---|---|---|
| **Project Objective**<br>To strengthen institutional cooperation and sustainable development, through the update of the TDA development and endorsement of the SAP and initiation of its implementation | Number of new partnership mechanisms with funding for sustainable management solutions of natural resources, ecosystem services, chemicals, and waste.<br>The extent to which capacities to implement national or local plans for integrated water resource management or to protect and restore the health, productivity, and resilience of oceans and marine ecosystems have | Established regional collaboration in adjacent water bodies (e.g. through the ICPDR)<br>EU Association Agreements signed by MD/UA promotes the use of IWRM approaches. Previous studies (EU, GEF and other) will provide substantial information for the development of TDA/SAP and RBMP<br>. | NA | Partnership with Black Sea through EMBLAS<br>Agreed analysis of basin with identified transboundary issues (TDA) (and key their causal drivers) | Functional and sustainable joint body for managing the Dniester River basin.<br>RBMP/SAP endorsed at 'highest' level within MD/UA Governments as basis for implementing agreed management actions<br>MD/UA agree to ~~initiating implementing actions agreed in~~ SAP and progressing with finalizing EU RBMP | Many new partnerships developed.<br>Dniester Basin Commission is functioning, with broad stakeholder input. Has met 2 times.<br>Links have been established with many projects, including EMBLAS<br>The draft TDA has been developed. 90% complete.<br>Targeted training and capacity development for ministry staff | S | The Dniester River basin commission is functioning and as five working groups on specific topics. At the national level, partnerships have been developed between mining industries, power producers, government, and NGOs through engagement at the working group level and within the commission.<br>Contact has been made with EMBLAS to exchange information regarding LBSMP from the Dniester River, as well as other projects.<br>The TDA is an advanced draft and ready for public consultation, with key thematic papers on i) impacts to hydropower and ii) Ecosystem valuation, and iii) the thematic paper on mine tailings.<br>The SAP discussions have been initiated during the TDA development.<br>Capacity to manage has been improved by virtue of engaging in so many working groups, the commission, and by targeted training, and study tours (Portugal-Spain, Australia). |

| Project Strategy | Indicator | Baseline | PIR | Mid-term targets | End of Project Targets | MT Level | Rating | Justification |
|---|---|---|---|---|---|---|---|---|
| | improved. | | | | | | | |
| | Operational bi-national river authority (commission) functioning with advice from expert working groups and involvement from wide range of stakeholders | Currently no regular meeting of bi-national authority | | Bi-national authority meetings<br>Expert WG established<br>3 private sector organisations involved with joint river authority and/or river councils<br>At least 3 civil society groups participating in meetings<br>10 experts trained on collecting information on the TDA / SAP | 6 bi-national authority meetings<br>Expert WG regularly make recommendations for SAP.<br>5 private sector organisations involved with joint river authority and/or river councils<br>At least 5 civil society groups participating in meetings<br>15 experts trained on collecting information on the TDA / SAP | There have been 3 total meetings (1 prep meeting)<br>Expert working groups in 5 areas.<br>Working with 8 private sector Tailing mine companies.<br>7 Civil society groups with consistent participation.<br>There are 40 participants in the TDA working groups. | | There has been a preparatory meeting and two full meetings of the Dniester River basin Commission.<br>The Expert WGs on Emergencies, Monitoring and Information, and Ecosystems and Biodiversity have met 1 time each – but are also supported on the TDA process primarily on hydropower impacts, and mining.<br>2 Ukrainian hydropower operators have participated in working groups, as well as attending Commission meetings. And 8 private sector Tailing mine companies.<br>There are 3 (UKR) + 4 (MD) Civil Society organizations and NGOs from both Moldova and Ukraine participate in expert working groups and the commission.<br>19 experts participated in the Study Tour of the Spain-Portugal transboundary water management - Albufiera Commission. 40 participants and observers in the TDA Working Group |
| | Countries identify means to implement | | | Potential sources of financing for SAP/RBMP | At least 2 potential sources (inc national funds) | 3 potential sources of financing have been identified and | | The project has contacted NEFCO, local and regional authorities via ecological funds, ADA/SDC in Moldova. EU |

| Project Strategy | Indicator | Baseline | PIR | Mid-term targets | End of Project Targets | MT Level | Rating | Justification |
|---|---|---|---|---|---|---|---|---|
| | the SAP/RBMP | | | implementation identified. | approached. | contacted. | | delegations to both riparian countries. |
| **Component 1** | **In-depth analysis of water resources, related ecosystems and their use** | | | | | | | |
| **Outcome 1**<br>Science-based consensus among the countries and key stakeholders on major transboundary problems of the basin | Science-based consensus among the countries and key stakeholders on major transboundary problems of the basin. | Data /information not collated for TDA purposes. | NA | Data gaps addressed TDA completed National and TB priorities confirmed.<br><br>Inventory of 4 mine tailing dams in the Upper Dniester conducted.<br><br>Formally accepted TDA | Inventory of 6 mine tailing dams in the Upper Dniester conducted | TDA has been 90% developed, contains 3 thematic papers.<br>Nitrate monitoring has been initiated and is on-going,<br>TDA draft conclusions presented at 2nd SC, 2nd DBC, and national basin council meeting in Moldova | **MS** | The TDA is slightly behind. It characterizes water bodies, status, and environmental objectives under EU WFD. It should have a synthesis section to outline the key Transboundary issues and causal linkages summarized for decision-makers.<br>TDA contains thematic papers on hydropower, ecosystem valuation, and mine tailings being edited.<br>12 mines tailings surveyed (more than known by the ministry) with 8 enterprises & have developed communication materials. |
| 2) Understanding current and future priority environmental issues, and their transboundary implications, including potential implications for security, by key | Scenarios and methodologies for predicting 'water futures' available to basin stakeholders | Climate change scenarios exist however there are no current estimates of water balance. | | Water balance calculated considering future water demand and climate change | *No target as planned to be finished by mid-term. 3 scenarios for future water demand and climate change* | Water Balance conducted, but not adequately considers future climate change. | **MS** | Data has been collected and flow maps are being constructed. The river has not yet been modelled – that is planned for the second half of the project.<br>Scenario modelling has not taken place. The TDA assess water use up to 2024 only. More detailed climate scenarios are needed. |

| Project Strategy | Indicator | Baseline | PIR | Mid-term targets | End of Project Targets | MT Level | Rating | Justification |
|---|---|---|---|---|---|---|---|---|
| basin stakeholders and the public | | | | | *modelled.* | | | Training is planned for 2019 and then the system will be transferred to the ministries. |
| 3) Local stakeholders ready to minimize negative consequences for economic sectors as well as the environment in the basin | Local strategy for climate change developed | No local strategies in the Ukrainian part of the basin | NA | The strategy is developed by the beneficiaries in MD/UA Strategy development and its application involved 3 towns and 10 private sector organisations. | At least 2 funding sources are found for implementation of the strategy<br>Strategy development involved 15 private sector organisations | A wide range of stakeholders and 2 municipalities consulted<br>Potential Funding: IKI, KfW and local and state ecological funds. | **S** | The 1st SC meeting decided to adjust from "Local Adaptation Strategy to Climate Change" to "Feasibility Study for Climate Change Adaptation Project(s)". It confirmed that this activity would still focus on the Odesa region in Ukraine, as the most vulnerable region to climate change in the river basin;<br>Consultation with a wide range of stakeholders in Odesa on 17 Dec 2018 and with local authorities in towns of Belyaevka and Mayaki in Odesa oblast on 27 March 2019 |
| **Component 2** | **Development of the policy, legal and institutional set-up, mandate and capacities of the River Basin Commission for strengthened basin-level cooperation** | | | | | | | |
| Outcome 4<br>Strengthened environmental transboundary cooperation in the Dniester basin | Strengthen bilateral bodies | 3 scenarios have been identified which will define the route taken by the project. Targets for midterms and | | Minimum of two bilateral meetings held.<br>Rules for the exploitation of Dniester reservoirs | Five bilateral meetings held<br>Rules for the exploitation of Dniester reservoirs ~~agreed upon~~ discussed in | The DBC has been formed, met 3 times (1 prep meeting)<br>Potential operating rules have been drafted by the | **HS** | One preparatory meeting (April 2018) and two Commission meetings (September 2018 and April 2019) have been held. Expert working groups formed. The decision to add another working group on legal WG.<br>Thematic paper on impacts and |

| Project Strategy | Indicator | Baseline | PIR | Mid-term targets | End of Project Targets | MT Level | Rating | Justification |
|---|---|---|---|---|---|---|---|---|
| | | end of the project will be defined by months 6 | | drafted | the DBC with an agreed process for finding a solution. | working group / assisted by international consultant | | observations of hydropower operations have been reviewed by international consultant and expert working group a series of recommendations which have been discussed the commission – including hydropower operators. |
| 5) Agreed actions to address major transboundary problems of the Dniester basin (SAP) with an established collaborative mechanism for a multi-country cooperation framework | SAP Endorsed by high-level representatives from Moldova and Ukraine | Data partly available but not analysed through TDA process nor key transboundary issues validated | | In progress | SAP/international RBMP endorsed by ministers from MD/UA for future implementation | Initial discussions on SAP have occurred as part of the TDA development. | **S** | Actions have been identified, rules of exploitation, sewage in Soroca, have been discussed. Dialogue between local operators and local municipalities are being planned. SAP, And on the agenda for the next Commission meeting.<br>Water bodies are being classified according to EU WFD under the TDA. |
| 6) Involvement of stakeholders in the decision making processes of the Commission and its institutions | Increase in stakeholder involvement in water governance/management and awareness | Broad stakeholder in governance/ management is currently low. | | Number and variety of sectors of stakeholder organisations involved ~~increase by 5% from baseline.~~<br>2 meetings of the national River Basin inter-sectoral | Meaningful (sufficient and consistent) multi-sectoral stakeholder involvement in basin councils and DBC.<br>~~Number of stakeholder organisations~~ | There is a broad range of stakeholders involved in the Commission and its experts working groups.<br>3 meetings of national river basin councils<br>The content for | **HS** | Stakeholder involved include: national and local government, civil Society, the private sector, academia, and international organizations (at expert group level). Regular communication with PCU and stakeholders.<br>2 national basin council meetings held in the Ukraine (Nov, 2018 & May 2019) with Moldovan participation. 1 national council meeting in Moldova April 2019 (Supported in conjunction with |

| Project Strategy | Indicator | Baseline | PIR | Mid-term targets | End of Project Targets | MT Level | Rating | Justification |
|---|---|---|---|---|---|---|---|---|
| | | | | councils<br>70 information boards installed along river<br>Successful completion of 1 competition for 'Eco Dniester Start-ups' Completion of one kayak expedition<br>Surveys indicate increased awareness on water/ | ~~increase by 10% from baseline~~<br>3 meetings of the National River Basin councils ~~Committee~~<br>Gender mainstreaming included in national plans for water management<br>Surveys indicate increased awareness on water/environment by 20% | information boards developed | | ADA). Briefing document produced. Gender mainstreaming strategy developed and being implemented. 47 info-boards (27 UA and 20 MD) were from a previous project. This project has not installed any yet, content is being developed and sites need identification. "Eco-Dniester start-up" scheduled for August 2019 (Behind). Kayak trip conducted July 2018, second will be in June 2019. Survey results are not available. |
| | Number of national stakeholders trained | | | 3 inter-sectoral meetings facilitated<br>15 twinning/exchange participants<br>Minimum 5 representativ | 6 inter-sectoral meetings facilitated<br>30 twinning/exchange participants | 3 national basin councils meetings facilitated.<br>21 twinning/exchange participants<br>0 Hydromet trained (course has been | S | National Inter-sectoral meetings are not planned anymore- as they already happen without facilitation, but with technical support from the project.<br>Albufiera Study Tour for 19 DBC members; Dniester-Kura Twinning (4-5 June, 2018) for project staff; 2 DBC members twinning with |

| Project Strategy | Indicator | Baseline | PIR | Mid-term targets | End of Project Targets | MT Level | Rating | Justification |
|---|---|---|---|---|---|---|---|---|
| | | | | es of Hydromet took up half capacity building long-term course | | dropped)<br>2 external training events<br>DBC training in conflict avoidance and collaborative dialogue | | Goulbourn Broken, Catchment (Australia in May 2019).; Kura-Dniester twinning in Dniester basin is planned for October 2019.<br>Hydromet not yet accomplished – Hydromet training has been removed as contacting WMO has taken a long time and cost estimates of training are very high<br>ENECE-ESPO Convention (January 2019) - Deputy Minister of Water Authority, Ukraine.<br>UNECE –Adaptation to climate change (Nov 2018) – 3 participants attended.<br>Commission sessions on conflict avoidance and collaborative dialogue (2 UA and 2 for MD)<br>Planned are – Pepsi/Tu training in Tallin Estonia (June), INBO meeing in Finland, World Water Week, UNECE- nature based solutions for climate Change |
| 7) Project experiences and lessons disseminated globally | Number of lessons/experiences disseminated | none | | At least 1 GEF Experience Notes completed | At least 3 GEF Experience Notes completed | 1 experience note submitted, another in draft form | **HS** | 1 experience note on Dniester-Kura Twinning (4-5 June 2018). Goulbourne-Broken twinning EN in draft form. A third "the use of conflict resolution specialist", is |

| Project Strategy | Indicator | Baseline | PIR | Mid-term targets | End of Project Targets | MT Level | Rating | Justification |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | being developed. |
| **Component 3** | **Strengthening of water resources and biodiversity monitoring and conservation, and information exchange in the Dniester Basin** | | | | | | | |
| 8) Stronger information base and better accessibility of the relevant information in the Dniester basin for the joint management of water resources | Establishment of framework for flood early warning and forecasting | No international flood early warning system available / There has been cooperation under the 1994 Agreement, in broarder section of the river. | | Agreements between MD/UA on procedures | ~~Approved~~ Recommended framework for flood forecasting and warning.<br>Warning procedures ~~adopted~~ tested for use by bi-national river authorities<br>Flood Hazard Maps and Flood Risk Maps approved (for EU-FD Flood Protection Plan) | No specific agreement, the advancement of EU FD.<br>Conducted risk assessment and developing flood mapping | **MS** | The project is assisting the countries' requirements under the EU Flood Directive to develop Flood Protection Plan (6 yr process).<br>The ADA/SDC project is working in close co-operation with the project in Moldova. In Ukraine consultations are being done with the APENA. The Dniester project has facilitated dialogue on flood issues, assisted with risk assessment and developing flood mapping. Agreement on procedures has not yet been developed but is being discussed in the WG on monitoring under the DBC. |
| 9) A coordinated institutional and legal framework for access to, and exchange of information from monitoring and | Agreement on data exchanges and monitoring with Improvements on hydro-met services | The platform became operative in a previous OSCE/UNECE project | | Procedures for data exchange drafted<br>An information | Agreed procedures for inter-sectoral exchange of information and ensured | Procedures not drafted, but being discussed<br>Platform exists but no hydromet data has been | **MU** | Agreement on procedures is being discussed in the WG on monitoring under the DBC.<br>Communication has been on-going between the hydromet agencies in UA and MD regarding the historic |

| Project Strategy | Indicator | Baseline | PIR | Mid-term targets | End of Project Targets | MT Level | Rating | Justification |
|---|---|---|---|---|---|---|---|---|
| other sources, including the use and further development of the Dniester basin GIS involving stakeholders from the whole basin | | | | platform within the adequate institutions with hydromet information in place | access of public to data | placed on it. | | data-<br>Historical data not on the platform as there is a reluctance to share flow data by one of the parties. |
| 10) Improved capacities for monitoring in the basin, and the partial implementation of the agreed monitoring and information exchange programme | Implementation of pilot demonstration project | | | ~~3~~ 2 pilot demonstration project initiated and in-progress<br>Stress reduction targets for pilots defined and agreed by 2nd PSC meeting | 2 demonstration projects completed and results guiding SAP and RBMP finalization<br>All demo projects have agreed replication / upscaling strategy | Both pilot / demonstration projects are underway.<br>Stress reduction targets not yet defined | **MS** | The SC reduced the demonstration projects from 3 to 2 for budget reasons<br>#1Ecological restoration of Yagorlyk River, - meetings have been held with locals, community experts and water authorities, areas for wetland restoration. Field study carried out- feasibility done. An international expert is being looked for. Have worked with local population. Field work is projected to be initiated the summer 2020 which will not allow time for monitoring or assessment.<br>#2 Support of fish biodiversity in MD-UK lower Dniester. The contract with an implementing partner signed. Activities are taking place. Conducting for assessment of fishers and catch in the lower Dniester, and fish population |

| Project Strategy | Indicator | Baseline | PIR | Mid-term targets | End of Project Targets | MT Level | Rating | Justification |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | assessment. Some activities underway: fish spawning nets are being produced and will be introduced in January for Umbra Umbra (endangered). |
| | Increased availability of basin-wide information | | | 130 participants attend a Dniester River Basin Conference<br>50 NGOs participated in Dniester NGO Forum (event parallel to Conference)<br><br>3 Press conferences related to basin<br>30 journalist take part in media engagement activities<br>Hydro-met information exchange system | 6 Press conferences related to basin Conference proceedings are published<br>Hydro-met information exchange system operational and data are open to public<br><br>50 journalist take part in media engagement activities | No Dniester Basin Conference held as yet, or NGO forum.<br><br>Journalists have been present at all the public events.<br><br>Communication strategy developed and being implemented<br><br>Hydromet information exchange system exists (but no data) | S | The conference was planned for October 2017 but project funds were not available until November 2017. It has been re- scheduled for October 2019 / back-to-back to the 3d DBC<br><br>Journalists took part in Dniester Day, and Kayaking, and Dniester Colours events.<br><br>Hydro-met information exchange system is available, but is behind schedule with information and data (see outcome 9). |

| Project Strategy | Indicator | Baseline | PIR | Mid-term targets | End of Project Targets | MT Level | Rating | Justification |
|---|---|---|---|---|---|---|---|---|
| | Project website functional and number of visits | | | Website operational<br>Reported number of website visits – 1500 | 3000 reported number of site visits | Website fully functional | **HS** | Website fully functional. |
| | Participation in GEF IW Conference and IW:LEARN exchanges | | | Project represented (PCU/National participation) at IWC 9 | 10 Dniester participants attend IWL sponsored exchanges | Participation in IWC9 | **S** | The project attended the IWC 9 (3 people attended) |

## 4.6 Remaining Challenges to achieving the project results

### 4.6.1 Developing greater collaboration and decision-making within the DBC

The DBC has convened on two occasions since the onset of the project in July 2017, with an additional preparatory meeting April 2018.

The Ukrainian delegation membership to the DBC was formed through Decree No.148, dated 28.02.2018, which had determined the Commission membership and the Provisions,[68] The Moldovan delegation was approved by the Parliament. Both delegations comprise: central and regional environment, water and energy authorities, academia, and NGOs.

Not all has gone smoothly. The first meeting was created into a "preparatory" meeting as the Moldovan party could not "officially" meet as approval of their membership to the commission was stalled due to delays in the Parliament . This was clearly not appreciated by the Ukrainian Commission as noted in the minutes of that meeting.[69]

Indeed, the way in which the commission is going to evolve will need some time and facilitation. There is not a clear composition for membership or set of rules for whom should make decision-making within the commission. Article 26 of the Dniester treaty[70] (and Para 5 of the Rules & Procedures) allows for two co-chairs and two deputy co-chairs (which are the Plenipotentiaries of the 1994 agreement). It further allows for representation from the competent central authorities, regional authorities, scientific institutions and organizations, and relevant NGOs. Decisions of the commission and its expert working groups are to be done through consensus.[71] Consensus is not defined by the Dniester Treaty or by the Commission as yet. However, consensus should be defined as "all parties allowed to decide on an issue are not 'opposed' to the issues" instead of "all are in favour of". This is often an easier bar to achieve and indicates that a solution has been achieved which parties can "live with" as opposed to particularly favour. Clearly, if parties both favour a particular option, it is easy to agree favourably.

In the first preparatory meeting "it was stressed that the Commission decisions should be taken by consensus regardless of the number of the present members from each side". This insinuates that all Commission members should agree through consensus. However, this situation is problematic with memberships ranging from 15 to 18 people per side, and containing many different institutions and organistaions, often with conflicting mandates. 'Consensus' should not depend upon acquiescence of institutions with specific mandates - the chairs, by virtue of being chairs and government officials, are to represent the balance of opinions. For example, the views and concerns of environmental organisations, power producers or representatives of agricultural, are clearly important and demand consideration by the larger body of the Commission. But when deciding issues as complex and controversial as hydropower regime flows organizations who are responsible to few

[68] DBC (2018) Preparatory Meeting of Commission on Sustainable Use and Protection of the Dniester River Basin in Chisinau, 5th April, 2018

[69] DBC (2018) Preparatory Meeting of Commission on Sustainable Use and Protection of the Dniester River Basin in Chisinau, 5th April, 2018.

[70] Treaty between the government of the Republic of Moldova and the cabinet ministers of Ukraine on Cooperation in the field of Protection and sustainable development of the Dniester River Basin, signed in Rome 29 September 2012 (2012 Dniester Treaty).

[71] See Article 26 (12), and Paragraph 42 of the Rules and Procedures of the Commission.

stakeholders, or whose mandate may be positional, such as to "return flows to natural conditions" or "produce maximum power at all costs", should not determine if 'consensus' is reached. They should be involved in the discussions, and it should be an aspiration that there is agreement amongst the whole Commission, but determining consensus should be done amongst smaller group, such as the Co-chairs, and possibly deputy co-chairs.

It is recommended that the newly formed expert working group on legal matters be asked to provide recommendations on how consensus should be approached within the Commission for decision-making. It should also look at how this is conducted in other basins with similar situations.

As confirmed with the interviews conducted during this review, the Ukrainian side is approaching the Commission as a decision-making body, with the co-chair leading heading the delegation; while be Moldovan Side views the commission as a consultative platform, whereby many views and interests are forwarded by the Commission members. In reality, the commission should be both a platform for consultation and information exchange but have a clear decision-making structure. Developing capacity for the commission to operate as such will take some time and strong facilitation (not management).

### 4.6.2 Development of operating rules for Dniester HPC

The development of the operating rules for the hydro facilities at the Dniester HPC are viewed by most stakeholders as a key element in addressing the transboundary issues in the basin. This was also confirmed through the TDA thematic report on impacts of hydropower production. The project has conducted impacts studies, and engaged an international consultant Pedro Cunha Serra, to make recommendations and advance the discussion on agreeing upon the operating rules.[72] It will be a challenge to agree upon operating rules for several reasons:

- There remain some conflicting opinions with regard to the needed environmental spring peak flows for the Odesa Delta. Possibly, this could be made more acceptable through an agreement on adaptive management whereby a level of flood flow is agreed upon and monitored for five years, with the opportunity to then return and discuss peak flows for the following five years. Indeed, Ukraine has extended invitations to Moldova to attend its meetings which determine flood flows for the Dniester HPC which is a promising sign that they are open to input from Moldova. In April 2019 Moldovan experts also participated in the corresponding meeting and took part in the decision making for the 2019 season.
- There has not been a clear outline regarding the trade-offs associated with different flow regimes. This should be conducted as part of the modelling and scenario building exercise. A clear trade–off analysis should be run looking at various operating rules and assessing how these would affect the various different objectives or interests compared to the regular operating rules. Some of the values would be calculated based on flow modelling (for example providing spawning or migratory flows based on water depth, velocity, and temperature) or flood control, and others would have to be expert judgment such as maximizing riparian habitat

[72] Serra, Pedro (2019) Recommendations to the draft updated Regulations to operate the water reservoirs of the HPP and PSPP Dniester cascade (final version), February 2019. Available at https://dniester-commission.com/wp-content/uploads/2019/02/Recommendations_operation-rules_Dniester_Serra_Feb2019_Engl_fin_clean.pdf

(the effect on habitat due to greater spring flooding as measured by flow modelling). For example:

Table 5 Example Objectives with Measuring Parameters

| Example Objective | Example Measurement |
|---|---|
| Maximize mid-stream spawning potential | Measured by m3 of improved habitat - water height and volume (modelling) and temperature. Optimum values based on expert judgement until monitoring has been conducted |
| Ensure sufficient water for intake (municipal) | Measured by river height and number of days between 1 July and 30 September when there are problems associated with intake (modelling) |
| Maximize riparian habitat in Dniester estuary | Measured by m2 of improved habitat -height of flood water – expert judgement at to the optimum flood water in the estuary |
| Maximize flood control efficiency | Measured by reservoir ability (no of days) to accommodate (attenuate) 1:50 year flood between 1 March and 30 April. |
| Maximize benefits of hydro-power production | Measured by GWhr produced (or value if timing and season is an issue); |

These could, however, be monitored over several years to see if indeed the operating rules have an effect or not. The trade-off analysis would look something like Table 6.

Table 6 Example Trade-Off table for different operating rules

| Operating rule / Objective | Bigger and longer spring releases (700m3/s) | Bigger min flow of 130m3/s | Draft Regulations (op- rules) |
|---|---|---|---|
| Maximize mid-stream spawning potential | A little better (+1000 m2) | Worse (-250m2) | A little better (+350m2) |
| Ensure sufficient water for intake (municipal) | A little worse (5 days) | Better (0 days with intake problems) | no significant change (3 days) |
| Maximize riparian habitat in Dniester estuary | Much better (+150,000 m2) | no significant change | A little better (+20,000 m2) |
| Maximize flood control efficiency | Worse (3 less days = 20% less) | no significant change | no significant change |
| Maximize benefits of hydro-power production | A little worse (-1 GWhr produced) | Worse (-10 GWhr produced) | No change |

The process acknowledges that all the objectives are important and that there are trade-offs to be made when making decisions. The discussions then center around whether or not it is worth the trade-off to move from one operating regime to another taking into account all the objectives. Moreover, there is not a clear

understanding amongst all the stakeholders of the benefits, such as environmental flows in drought situations, and drawbacks associated with regulating the river. The creation and discussion of the trade-off table will help in discussions to educate all the stakeholders on the various trade-offs associated with different operating regimes.

### 4.6.3 Ongoing complexities of working the region

The process of developing integrated water management within the Dniester river is complicated not only through International relations between Moldova and Ukraine, but also because of the internal situation Moldova regarding the Transdniester region. So far, this has been dealt with fairly well with only minor hiccups in terms of protocol regarding the Moldovan Commission members. For example, the Commission has been able to stimulate dialogue between Ukraine and members within the Transdniestrian region to address specific concerns associated with Power generation, ash and slug dump side waterlogging of towns in the Odesa oblast.[73]

## 4.7 Project Implementation and Adaptive Management

Overall the Project Management and adaptive Management seems to be going well.

### 4.7.1 Management Arrangements:

See section on implementation arrangements for details.

The working relationship between the implementing agency (UNDP) and the executing agency (OSCE) are functional with regular communication. The Country Co-ordinators of OSCE are familiar will all the beneficiaries and stakeholders, as evident from the field mission.

The Steering Committee meets once a year to provide oversight to the project as evidenced from the field trip and SC reports. SC members interviewed confirmed the effectiveness of the SC and DBC as a decision-making bodies for the project.

There some internal OSCE complexity related to the project, but none of that can be considered to compromise project delivery. The OSCE Field Operations in Moldova and Ukraine are implementing the project in close coordination with the OSCE Secretariat based in Vienna. The Office of the Co-ordinator of OSCE Economic and Environmental Activities (OCEEA) holds responsibility for the effective use of donor resources and the delivery of outputs, ensure the operationalization of the PCU and supervises its work from Viena. Project disbursements are thorugh the field Operations office in Kiev. The OSCE Project Co-ordinator in Ukraine has access to designated funds within agreed upon tasks.

The project has yet to arrive at an agreement for UNECE involvement in the project with respect to support for climate change aspects, monitoring and data exchange, inter-sectoral coordination and SAP development,[74] amongst others. The issue revolves around accounting requirements on a quarterly basis as required by the UNDP and reporting timelines within the UNECE which is on a an annual basis. Discussions with UNDP during

[73] Preparatory meeting of the DBC.
[74] UNDP (2017) Project Document for "Enabling transboundary cooperation and integrated water resources management in the Dniester River Basin" (ProDoc).

this evaluation indicate that they are close to resolving the issue. In any case, the flexibility and adaptive nature of the PCU and Steering Committee is illustrated by the ongoing commitment of the UNECE to contribute to project related activities including capacity-building for the DBC, flood risk management, adaptation to climate change in Odesa region, inter-sectoral coordination, river restoration on the Yagorlyk tributary and others in spite of no signed agreement. This in part can be attributed to the strong relationships the OSCE has developed over the years with project partners.

### 4.7.2 Work Planning:

Annual workplans are developed using an excel based GEF Tracking spreadsheet[75] and approved of by the SC and amended as needed. The annual meetings of the Steering Committee, as well as the recommendations coming from the DBC, provide for ample opportunity to reassess direction and maintain momentum from the beneficiary agencies. As such, there is a high level of adaptive management that is undertaken in the project; as illustrated by choosing training schedules, developing timelines for EWG meetings and products.

Discussions with several SC members indicated good support from the PCU, including preparatory documents being sent out, review of previous workplans and SC reports, clear meeting goals with identified decision items on agendas, and follow up work.

### 4.7.3 Finance and co-finance:

**Project Financing**

No financial audit was conducted as part of this evaluation. It is recommended that the Steering Committee consider requesting the OSCE conduct an internal audit of the project to cover financial aspects not covered under this review.

As of 31 March 2019, the OSCE had dispersed USD 670,000[76], which amounts to 34% of the USD 1,950,000 GEF grant. This seems to be a rather low figure for the extent of time since the project was initiated. However, 4 months were needed to initiate the activities, which meant a large conference that was planned for the first quarter had to be postponed, and more expensive activities such as monitoring, modelling, and demonstration projects are to be conducted in the second half of the project. In this light, the low expenditure is less of a concern for this point in the project.

Based on the dispersed funds, as of 31 March 2019, there are ample funds to complete the project, including a possible no-cost extension of 4 to 6 months.

There were no transfers between components, and it appears there will be no significant transfers between components for the duration of the project.

**Co-financing**

There is a 1:10 GEF: Co-financing ratio in the GEF-Dniester Basin Project as outlined in. Table 7 below.

[75] As confirmed by the Regional Project Coordinator
[76] Euro 576,000

Table 7: Co-financing Table for GEF Dniester Project

| Country / Organisation | Committed In-kind (cash) | Accounted for by MTR | Comments |
|---|---|---|---|
| Moldova | 1,000,000 | | Staff and stakeholders have participated in all the meetings, have taken part in preparation of meeting materials and TDA |
| Ukraine | 2,000,000 | | Staff and stakeholders have participated in all the meetings, have taken part in preparation of meeting materials and TDA |
| UNDP | 300,000 | | |
| OSCE | 1,515,000 | | Office space in Chisinau, full administrative and financial management run by the OSCE in Kiev. |
| UNECE | 1,100,000 | | Complimentary work, advice on DBC and donors coordination, modeling, demo on river restoration and climate change activities , support for SAP |
| ADA/SDC | 13,500,000 | | Moldovan national Dniester councils, the Dniester Day, economic valuation of ecosystem services. |
| Regional Water Management Authority in Krakow (Poland) | 50,000 | | |
| Total | 21,009,500 (230,000) | NA | |

Unfortunately, there is no available accounting with respect to co-financing. However, some estimations can be inferred from participation and activities. The UNDP, for example, is implementing the project and overseeing its execution, and in some cases participating (for example the UNDP project "The Dniester Hydro Power Complex Social and Environmental Impact Study".[77] The UNDP is not administering any of the GEF Grant and so their co-financing portion is fairly easily accounted for over the three years.

The UNECE co-financing is primarily related to the EU-funded project EUWI+ on national policy dialogues in Moldova and Ukraine since this project covers both countries and is focused on supporting inter-sectoral dialogue within the two countries. For Ukraine, the project's activities allow the preparation of the River Basin Management Plan for the Dniester River in accordance with the legislative acts harmonized with the WFD, and for the Republic of Moldova to update the Plan already approved by the Government.

UNECE Co-financing also included staff time of UNECE employers who are providing guidance and support for the project and contribute to the meetings. The UNECE has

[77] Project # 00109119; implementing partner, Ministry of Agriculture, Regional Development and Environment; duration 1 September 2018 to 30 August 2019. Funded by the Swiss Embassy in Moldova.

facilitated meetings including the "Ecological Cassification of Surface Water Bodies in EUWI+ pilot areas of Belarus, Ukraine and Moldova, 19 - 20 June 2018, Kyiv, Ukraine. The workshop advanced the process and understanding of the water body classification in line with EU WFD. EUWI+ experts have also participated in meetings such as the working Group Meeting on Trans-Diagnostic Analysis in Chisinau 15 March 2018.

Both Moldovan and Ukranian governments have participated fully in the workings of the Dniester Basin Commission. They have hosted meetings, provided staff time to attend meetings and conduct studies. They have also organised the national Basin Councils, and at this point require less support from GEF-Dniester project than had been anticipated.

OSCE co-financing includes office space in Chisinau, full administrative and financial management run by the OSCE Project Co-ordinator in Kyiv. OSCE in Vienna has been encouraged to request for co-financing assessments form other supporters. In the absence of assessments from co-financing organisations, it is recommended that an assessment of the co-financer's activities be done through their annual reports or other means.

### 4.7.4 Project-level Monitoring and Evaluation Systems & reporting:

The reporting for the project is laid out in the Monitoring and Evaluations, Section 7 Project Document. The reporting requirements laid out are appropriate for a full-sized GEF project, and the identified budget of USD 119,000 (GEF fund 93,000) is adequate for the activities planned.

- Inception workshop was carried out the 18th of December 2017, with subsequent report.
- No PIR was submitted for 2017 as the Project began in July 2017. No PIR was submitted in 2018 and a single PIR is being planned to be submitted following the MTR in June 2019. The reasoning is that a cycle for PIRs starts in June while the project started in July. Thus – for the system - in June 2018 the project had not reached a year of implementation. Its first report will cover July 2017 to June 2019.[78]
- The GEF Progress Tracker is being used to monitor indicators[79]
- PCU and DBC members attended the International Waters Conference 9.
- Project Steering committee has met annually (18 December 2017 and 18 December 2018 ) reports are available on the project website.[80]
- MTR is conducted and TE planned for final quarter.

### 4.7.5 Stakeholder Engagement and Public Awareness:

Stakeholders have been well identified, characterised and substantively engaged in the project. The initial "Stakeholders Analysis" and "Communication Strategy" identified all the potential interested agencies and organisations.[81]

During implementation, the project there is being a high degree of communication with various stakeholders as well as a high degree of transparency with products and reports placed on the internet. Key beneficiaries are copied on all communications between the PCU and stakeholders. Table 8 shows the organizations contacted during the project.

[78] Vladimir Mamaev. Personal Communication 13 May 2019.
[79] Confirmed by the Regional Coordinator.
[80] See 18 December 2017, 18 December 2018.
[81] Communication strategy

Table 8 Agencies and Stakeholders contacted under the Communication Strategy

| Authorities and ministries | Academia and Parks | Civil Society | International Organizations |
|---|---|---|---|
| MD and UKR Environment Ministries | Lower Dniester National Nature Park | Eco-TIRAS | UNDP (Istanbul, MD, UKR) |
| MD and UKR water agencies | Ecological University (Odesa) | Regional Research Center | EU delegations to MD and UKR |
| MD and UKR Geological Services | Transnistria University | NECU | EU Apena Project |
| MD Fisheries Conservation Service | Hydrobiology Institute of the National Ukrainian Academy of Sciences (NUAS) | Eco-Spectr | FAO |
| Ukraine's State Fishery Agency | NUAS Zoology Institute | Biotica | EBRD |
| Ukrhydroenergo | | NGO Kray | Embassy of Sweden in MD |
| Dniester Basin Water Resources Department | | Mama-86 | EUWI+ |
| Odesa Oblast Ecology and Agriculture Administration | | WWF | ADA / SDC Water & Sanitation Project |
| Odesa Water Agency | | Zoi Envir't Network | PPRD – East -2 |
| Odesa Regional Development Bureau | | Euroregion Dniester | Other GEF TDA / SAP Projects (Drina, Kura) |
| Infox vodokanal | | Albufeira Convention | |
| RM Transnistria regional authorities on ecology and agriculture, hydromet | | Water Convention Secretariat | |
| | | WMO | |
| | | ICPDR | |
| | | Dniester Basin Council (Rzeszów, Poland) | |

Project has engaged in a number of awareness building activities, including Dniester day, a kayak competition, and an art contest.

### 4.7.6 Communications:

Based on discussions with various stakeholders, the level of communication between the PCU and national and local stakeholders is good. Most stakeholders interviewed had very positive comments regarding information flow, access to materials, preparation for meetings, reviewing products, and conducting contracts. It was noted by several stakeholders that the level of transparency displayed by the PCU was very high with the meeting minutes and reports being placed on the website in a timely manner. A

communication strategy was developed including specific ways of contacting each of the key stakeholders and beneficiaries.[82]

Communication with the wider public and stakeholders is addressed under "Stakeholder Engagement and public awareness".

## 4.8 Sustainability

### 4.8.1 Financial risks to sustainability:

The project is encouraging financial sustainability by having countries pay for time and preparation in attending the DBC and its working groups. It will move towards greater self-funding of the DBC and EWGs during the implementation phase of the SAP. However, the countries will need to experience significant benefits from the process before they are able to assume the entire role of funding a Commission with a dedicated secretariat and conduct national monitoring at the level envisioned under the EU WFD. This will, however, take a number of years to achieve.

In terms of infrastructure investments, such as dams, flood protection, sewage upgrades, cleaning of tailings ponds, etc. the countries are likely going to rely on donor involvement for the foreseeable future.

### 4.8.2 Socio-economic risks to sustainability:

The entire project is based on developing a more integrated approach to managing the Dniester River Basin that includes improvements to the environment, but also addressing economic development through better agricultural practices, and most importantly an agreed-upon flow regime for hydropower production, which provides more certainty around upgrades and investments. As the process is bringing the countries in line with EU WFD this will enhance possibilities of greater proximity to the EU and its associated socio-economic benefits.

### 4.8.3 Institutional Framework and Governance risks to sustainability:

The Institutional mechanisms supported and developed during the GEF Dniester Project are completely compatible with the structure identified with the 2012 Dniester Treaty. In this regard, there are virtually no risks to sustaining the mechanism other than financial as previously discussed. There could be problems associated with maintaining the degree of expert working groups which currently exist. However, there may be less need for them over time as issues of concern are addressed.

### 4.8.4 Environmental risks to sustainability:

The entire project is based on developing a more integrated and holistic approach to managing the Dniester River Basin that includes water regulation, pollution control, biodiversity preservation and flood mitigation. The support for this activity stems from the local level through to the national level as it addresses national priorities. See section on Country Ownership.

[82] See communication strategy.

# 5 Conclusions and Recommendations

**Conclusions**

Overall the GEF Dniester Project has advanced cooperation significantly in the region through strengthening the institutional mechanisms and promoting a culture of transparency (both bi-lateral and national), developing a common understanding of the key issues, and broadening meaningful participation of stakeholders. More specifically:

*Institutional development*: The 2012 Dniester Treaty came into force in June 2017 with its ratification by Ukraine. Under the Treaty the Dniester Basin Commission was to be formed six months after entry into force. The Project facilitated dialogue and discussions between the Parties, such that between April 2018 and April 2019 a preparatory meeting and 2 full meetings of the Commission were held. Moreover, to the extent possible, there has been involvement of Transdniestria in most aspects of the project which is a significant accomplishment considering the political situation within the region. Nevertheless, to maintain its involvement will be a continuing challenge. The Project has also facilitated the meetings of expert working groups in Ecosystems & Biodiversity; Planning Group; Strategic Group; Monitoring & Information Exchange; and Emergency situations which have reported to the DBC at their 2nd meeting in April 2019.[83] The institutional structure is evolving as a decision-making mechanism and has taken important steps to address some of the key basin issues. For example, the DBC is establishing an additional EWG on Legal issues to examine the legal status of the current operating rules of the Dniester HPC. And recently, Ukrhydroenergo's representative informed the DBC that all activities associated with the construction of the HPP cascade in the Upper Dniester (above the Dniester HPC) would be suspended until the completion of the strategic environmental assessment of the Scheme of Integrated Use of Hydropower Resources in Ukraine.[84]

The success of the new institutions can be attributed, in part, to the interest of the parties to implement EU Association Agreements, which were signed in 2014. However, some credit is due to the GEF-Dniester project which focused effort on building trust and developing a cooperative and collaborative environment for dialogue. Notably, the project has:

- 19 members of the DBC conducted a study tour to examine the experience of Spain and Portugal on transboundary water management under the Albufeira Convention." to review the implementation of the Albufeira Convention between Spain and Portugal. The tour included Ukrainian power producers. This occurred shortly after the 1st DBC meeting, and participants confirmed that this was an important step in helping to build relationships between the different commission members;
- promoted a culture of transparency, whereby communication with members of the Commission and expert working groups is open for all people to follow. Meeting notes and reports are all on the web and are open for public access. Real-time hydrographic data is available for parts of the river; and,

[83] DBC (2019) Second Meeting of the Commission on Sustainable Use and Protection of the Dniester River Basin in Kyiv, 4-5 April 2019.
[84] DBC (2019) Second Meeting of the Commission on Sustainable Use and Protection of the Dniester River Basin in Kyiv, 4-5 April 2019.

- engaged a Ukranian conflict avoidance and collaborative dialogue specialist to assist with the Commission process. It is recommended that this be continued and expanded with a second specialist from Moldova.

*Common understanding:* The Transboundary Diagnostic Analysis of the basin, builds upon on the previous analysis, particularly with regard to the three thematic papers. The TDA has helped advance the interests of the countries to identify and characterize waterbodies and develop environmental status with respect to the EU Water Framework Directive. However, it requires a section to tie in the knowledge detailed in the thematic papers and relate it to transboundary issues. One of the key issues in the basin is the operations of the Dniester Hydro-power Complex and its positive effects, such as power production and flood control, as well as negative effects, such as sediment retention and reduced peak flows in the lower Dniester River impacting the estuary. The use of neutral third parties to develop background documents[85] was strategically undertaken to help parties accept the results of the studies and investigations. The choice of developing a thematic paper on mine tailings helps to develop understanding and possible actions around one of the potential key sources of pollution in the basin, along with sewage and agriculture. Again, the ability of the Moldovan government and NGOs to participate in meetings and surveys indicates the growing acceptance of information transfer and transparency between the countries. This is also exhibited with the April 2019 meeting of the Interdepartmental Commission that sets the flow parameters for spring releases of the Dniester HPC, and which was attended by the Moldovan government and NGOs following the 2nd DBC meeting.

*Stakeholder engagement:* The project advanced the inclusion of stakeholders in the decision-making process. The development of the stakeholder engagement strategy, outlining the communications and messaging in project implementation illustrates a proactive approach to including the various interest groups in the basin. Discussions with several NGOs confirmed that overall the project is making a concerted effort to include these groups in the process, such as ensuring participation at Commission meetings, inclusion in working groups and technical groups, and maintaining information and transparency with the dialogue process and documents. Likewise, the hydropower producers interviewed during this review confirmed the project's openness and transparency in including all perspectives with regard to hydropower generation in the basin. They also noted and appreciated the PCU for providing a non-biased third party platform to help initiate the discussions within the Commission.

Despite the successes, however, there remain a number of challenges for the project to overcome to realize all project outcomes. The process for determining operating rules within the Commission[86] will not be a straightforward task. An active adaptive management approach to determining operating rules has been suggested through this report. With respect to developing an agreement on the procedures for flood protection and early warning, the project has been able to facilitate transboundary discussions. However, it is

[85] Zoi Environmental Network facilitated the thematic paper on hydro-impacts; and Pedro Serra, an international consultant specializing in hydro operations, produced a detailed assessment and recommendations for operating rule curves. OSCE (2019) Thematic Report on Hydropower impacts in the Dniester Basin (Draft). Serra, Pedro (2019) Recommendations to the draft updated Regulations to operate the water reservoirs of the HPP and PSPP Dniester cascade (final version), February 2019.

[86] Once approved by the Commission, the Regulations would be submitted for approval by the State Agency of Water Resources as required by the national legislation of Ukraine (1st Meeting of the Dniester Basin Commission).

questionable whether the countries will reach an approved framework for flood forecasting and warning within the timeframe of the project as the countries are pursuing their mandates under the EU Flood Directive, which lays out a 6 yrs process for developing a flood risk management and early warning system. Another challenge for the project will be developing an agreement on a data exchange procedure, for the existing data exchange platform. Interestingly, some real-time data is being made publicly available, for example at the Dniester HPC; however, overall the exchange of data envisioned at the onset of the project is not in place. The Working Group on Monitoring and Information will undoubtedly need additional support and focus in order to arrive at practical recommendations for the commission to consider. The pilot demonstration projects, while underway are unfortunately behind schedule. This is in part due to the Commission having its first meeting in September of 2018, as opposed to April when it could have decided upon pilot projects and initiated activities in that summer. Also, there is a lack of national experts regarding riparian restoration, and so time has been taken to find appropriate experts. This has resulted in compounded delays, for example, the restoration project on the Yagorlyk River is unlikely to have physical works completed in time to conduct a year of monitoring within the project.

The project strategy envisioned that more expensive activities would occur in the second half of the project such as the implementation of the demonstration projects, including physical works. Having only spent some 30% of the GEF allocated funds, there is ample room in the budget for increased attention to areas such as basin reservoir modelling, and additional support for working groups such as Monitoring and Information.

Overall, it can be concluded that the GEF-Dniester project is highly relevant for the two countries in terms of providing a platform to address issues of mutual concern, enhancing the capacity of the Dniester Basin Commission (resulting from the 2012 Dniester Treaty), and advancing their interests concerning the EU Association Agreements signed in 2014 in multiple areas. For the bulk of its activities, the Project has been effective in achieving its mid-term targets and is on its way to realizing project outcomes. Several areas, such as data exchange need increased attention, and the agreement on a flood early warning system may not be achieved. However, this should not undermine the overall project goals of improving the international institutional mechanisms and cooperation to move towards sustainable use and development in the Dniester Basin. Taking into account the previous work accomplished in the basin, the Project has used GEF funds in an efficient manner to move closer to achieving outcomes. It has done this through both attention to expenditure, but also through partnering with other projects.

## 5.1 Recommendation Summary Table

Table 9: Summery Table of Recommendations

| | |
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| 1 | The project should have a no-cost extension of 6 months until 31 December 2020 to ensure sufficient time for the outcome impacts to be fully realized. The reasoning for this includes i) a delay of 4 months in starting project activities due to integrating accounting systems and bureaucratic processes within the implementing and executing agencies; ii) ensuring sufficient time to close the project (2-3 months). Based on the release of funds to date, it is reasonable to assume that there will be sufficient funds to continue until the recommended date. |

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| | It should additionally be recommended for any future projects that the "start-up time" be incorporated into the planning phase and that it would be 3 months in duration. |
| 2 | The SAP development should be started as soon as possible and not wait for the TDA to be fully completed. Several of the key problems and causal effects have been identified, such as water flow regulation and pollution from mine tailings, and these should form the initial focus of the SAP. |
| 3 | The following changes to the Logical Results Framework should be considered:<br>11. The Project Objective should be expanded to read "To strengthen institutional cooperation and sustainable development, through the update of the TDA development and endorsement of the SAP and initiation of its implementation". The project focusses on improving sustainable development through the strengthening of the institutional architecture within the basin.<br>12. Under the Project Objective, the end of project target should be changed to "MD/UA approve the ~~initiating implementing actions agreed in~~ SAP and progressing with finalizing EU RBMP". It is overly ambitious to place as a target the implementation of SAP actions, rather it should be that the SAP is "approved" as the measurement of success.<br>13. Under Project Objective the mid-term targets for the "Operational bi-national river authority" should include "Expert WGs established", the end target should include "EWGs make recommendations for SAP". The targets should include functioning and effective EWGs.<br>14. Under Outcome 1, 3 – the PSC changed the activity from developing "local climate change adaptation strategy" to a "feasibility study for local adaptation projects".[87] The Mid-term and end of project targets should reflect this accordingly. The mid-term target should read "The ~~strategy~~ feasibility study is developed ……." And the end of project target should read "at least 2 funding sources are found for implementing feasible projects", and "15 private sector organisations are involved".<br>15. Under Outcome 2 there should be an end of project target "3 scenarios for future water demand and climate change modelled". Different future water use projections with climate change will help decision-makers understand the implications of current water use planning in the basin.<br>16. Under outcome 4 the final target should be "Rules for the exploitation of Dniester reservoirs ~~agreed upon~~ are discussed in the DBC with an agreed process for finding a solution". It may be too ambitious to have determined operating rules for the Dniester HPC, rather a process and timeline for arriving at an acceptable solution within the Commission (that includes adaptive management) should be agreed upon.<br>17. Outcome 6 – the targets for stakeholders related to "increased % over the baseline" should be removed, as the baseline is zero. The following should |

[87] 1st PSC Meeting Minutes.

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| | be the mid-term target: Number and variety of sectors of stakeholder organisations involved, and the end of project target should be: Meaningful (sufficient and consistent) multi-sectoral stakeholder involvement in basin councils and DBC. The main goal of stakeholder involvement in decision making is to provide a broad perspective of interests and expertise to enhance decision-making.<br>18. Outcome 6 – the end of project target should read "3 meetings of the National River Basin councils".<br>19. Under outcome 8 – the end of project target should read "~~Approved~~ Recommended framework for flood forecasting and early warning", and "Warning procedures adopted tested for use by bi-national river authorities", and a new one added, "Flood Hazard Maps and Flood Risk Maps approved (for EU-FD Flood Protection Plan)." It is ambitious to have an approved framework for flood forecasting and early warning within the timeframe of the project, the EU indicates a 6 year process which the countries are following.<br>20. Outcome 9 – the mid-term and end of project targets for the pilot demonstration projects should be changed from 3 to 2. As the SC decided to reduce the number. |
| 4 | To help facilitate agreement regarding operating rules of the Dniester HPC, the project should consider:<br>• Researching a trade-off table illustrating the positive and negative effects of various operating rules on key values of concern for the DBC, such as flood control, power generation, minimum dry season flow, peak flow, sediment load, etc. The trade-off table will be of support for decision making<br>• Proposing an active adaptive management approach to the operating rules such that a reviewed and evaluated "test set" of the operating rule be established for 5 years, with key values monitored. After 5 years a review is made of the operating rules. This does not "lock" reluctant stakeholders into fixed operating rules, and more knowledge will be known regarding the effect of operating rules on the core values. |
| 6 | An analysis by the Legal Expert Working Group should be conducted regarding the "decision-making" format of the DBC under the 2012 Dniester Treaty, and to clarify who and how decisions are made and if they can be made more effectively. Effective decision making in other river basin commissions should be researched. |
| 7 | To advance data exchange under outcome 9 the project should consider a data and information capacity building workshop for the DBC and EWG on Monitoring. It should also look at different levels of access to information by third-parties etc. and who should be able to access which data. |
| 8 | To avoid delays in project activities due to differences between project partners' financial and reporting systems administrative agreements between partners should be developed within the first 3-6 months of the project. In this regard the project should prioritize the OSCE/UNECE agreement on activities to ensure continued |

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| | implementation. |
| 9 | The project SC could consider requesting an internal audit in line with OSCE Financial Regulations and Rules. This would cover aspects of financial accounting and management not covered under this review. |
| 10 | Due to the complex nature of the region, it is recommended to continue with the use of a conflict avoidance and collaborative dialogue specialist. However, to ensure a balanced approach both a Ukrainian and a Moldovan specialist should be used. |
| 11 | In general, the project has been very successful in engaging local consultants and experts. In areas with political sensitivities, such as legal assessments, for example, the project should engage both a Ukrainian and a Moldovan expert to ensure a balanced perspective is taken. In cases where this is not possible an international expert should be found. |

# 6 Annex A – TOR

TERMS OF REFERENCE

SSA No.

**Title:** International Consultant to conduct a Mid-Term Review of the GEF project "Enabling transboundary cooperation and integrated water resources management in the Dniester River Basin" in line with the Guidance for Conducting Midterm Reviews of GEF Financed Projects

**Location:** Home-based, with one travel per country: Moldova and Ukraine

Start of assignment: 21 April 2019

End of assignment: 30 June 2019

**Brief description**: In line with the donor's requirement, an international consultant will be hired by the OSCE to assess the progress and performance of the GEF project "Enabling transboundary cooperation and integrated water resources management in the Dniester River Basin" since the start of its implementation in November 2017.

Background

A Mid-Term Review (MTR) for Global Environment Facility (GEF) funded projects is primarily a monitoring tool to identify challenges and outline corrective actions to ensure that a project is on track to achieve maximum results by its completion. It will be followed by a fully fledged terminal evaluation in 2020 when the project comes to an end.

This MTR will be guided by the standards for commissioned evaluations as set out in Section IV of the OSCE Evaluation Framework Administrative Instruction No. 1/2013 and will also follow other applicable international standards. In this case, the MTR will follow specific guidelines on the purpose, scope and methodology of mid-term reviews, on main review criteria, and the indicators/benchmarks against which the criteria will be assessed as set out in the **Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF Financed Projects** (as detailed below). This Guidance standardizes the approach to undertaking mid-term reviews of the GEF funded projects and is therefore essential to this assignment.

A quality control process will be put in place to ensure that a draft MTR report will be reviewed for accuracy of findings and to confirm that recommendations are objective, relevant to the project being assessed and capable of implementation prior to the clearance

of the report by the OSCE. Wherever applicable, the MTR report will seek to indicate state staff members and entities responsible for implementing recommendations and respective timeframes.

The overall goal of the GEF project "Enabling transboundary cooperation and integrated water resources management in the Dniester River Basin" is "Integrated water resources management in the Dniester river basin to strengthen sustainable development, through the update of the TDA, development and endorsement of the SAP and initiation of its implementation". The project consists of the following three components.

Component 1:

- development of the transboundary diagnostic analysis (TDA, including an inventory of tailing mines),
- study of an influence of the Dniester on the Black Sea,
- analysis of nitrate and phosphorus contamination,
- completion of water balance automated system,
- inventory of tailings in the Dniester basin,
- development of projects for adaptation to climate change in Odesa region of Ukraine.

Component 2:

- development of a joint (Moldova-Ukraine) action plan (SAP, = basin management plan),
- supporting work of the national basin councils and the bilateral (Moldova-Ukraine) Dniester River Basin Commission,
- work with hydropower.

Component 3:

- support to joint monitoring and data sharing,
- identification of flood risks,
- demonstration projects (restoration of small rivers),
- public awareness (the Dniester Day on May 27, art competition "Colours of the Dniester", joint expeditions, etc.).

As the project is approaching the middle of its implementation, the project is required to go through the MTR to examine the progress and performance of the project since the start of its implementation. The MTR will include the evaluation of both the progress in project implementation, measured against planned outputs and outcomes set forth in the Project Document, and the assessment of features related to the process involved in achieving those outcomes, and the progress towards the project objective. The MTR will also identify and address causes and issues that constrain the achievement of set targets.

The MTR is intended to identify weaknesses and strengths of the project design, and to develop recommendations for any necessary changes in the overall design and orientation

of the project by evaluating the adequacy, efficiency and effectiveness of its implementation, as well as assessing Project outputs and outcomes to date. Consequently, the MTR mission is also expected to make detailed recommendations on the work plan for the remaining project period. It will also provide an opportunity to assess early signs of project success or risks of failure and prompt necessary adjustments.

The MTR will follow approaches adopted by the GEF for the assessment of International Waters projects and UNDP M&E guidelines.

The MTR mission will also identify lessons learnt and best practices from the Project that could be applied to future and on-going projects both within the OSCE and in relation to other GEF projects.

Tasks and responsibilities

The scope of the MTR will cover all activities undertaken within the framework of the project. One MTR consultant with a combination of regional knowledge, evaluation experience, and in-depth knowledge of GEF IW projects will compare planned project outputs and outcomes to actual/achieved outputs and outcomes and assess the actual results to determine their contribution to the attainment of Project objectives.

The MTR will extract lessons learned, diagnose and analyse issues of concern and formulate a concrete and viable set of recommendations. It will evaluate the effectiveness and efficiency of Project management, including the delivery of outputs and activities in terms of quality, quantity, timeliness and cost efficiency. The MTR will also determine the likely outcomes and impact of the Project in relation to the specified Project goals and objectives.

Under the supervision and co-ordination of the OSCE project team, the expert is expected to:

1. To conduct a desk review of the project documents (i.e. PIF, Project Document, AWPs, Project Inception Report, Finalized GEF focal area Tracking Tools, Project Steering Committee meetings' minutes, Financial and Administration guidelines used by the Project Team, project operational guidelines, manuals and systems, etc.) provided by the OSCE Project Team and the implementing agency (UNDP) (XX day)
2. To participate in an MTR inception meeting with the PSC and the implementing agency to clarify the objectives, methods, deliverables, a timeline and a draft table of content of the MTR (XX day).
3. To conduct interviews with and site visits to (will be clarified during the inception meeting, XX days):
   - UNDP Senior Management,
   - the Dniester River Basin Commission Co-Chairs from the Republic of Moldova and Ukraine (deputy heads of the national environment authorities),

- GEF Operational Focal Points in the Republic of Moldova and Ukraine,
- deputy heads of the national water authorities of the Republic of Moldova and Ukraine,
- Project Manager, GEF Dniester Project regional project coordinator and 2 national project coordinators (OSCE),
- relevant NGOs active in the Dniester river basin,
- UNECE Regional Adviser on the Environment.

4. The MTR consultant will assess the following four categories of project progress and produce a draft and final MTR report based on the *Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF*http://web.undp.org/evaluation/documents/guidance/GEF/mid-term/Guidance_Midterm_Review_EN_2014.pdf*Financed Projects*, including the ratings (xx days):

**4.1** Project Strategy Project Design:

- Review the problem addressed by the project and the underlying assumptions. Review the effect of any incorrect assumptions or changes to the context to achieving the project results as outlined in the Project Document
- Review the relevance of the project strategy and assess whether it provides the most effective route towards expected/intended results
- Review how the project addresses country priorities
- Review decision-making processes

**4.2.** Progress Towards Results

- Review the logframe indicators against progress made towards the end-of-project targets; populate the Progress Towards Results Matrix, as described in the Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects; colour code progress in a "traffic light system" based on the level of progress achieved; assign a rating on progress for the project objective and each outcome; make recommendations from the areas marked as "not on target to be achieved" (red)
- Compare and analyze the GEF Tracking Tool at the Baseline with the one completed right before the Midterm Review
- Identify remaining barriers to achieving the project objective
- By reviewing the aspects of the project that have already been successful, identify ways in which the project can further expand these benefits

**4.3.** Project Implementation and Adaptive Management

Using the Guidance For Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects; assess the following categories of project progress:

- Management Arrangements
- Work Planning
- Finance and co-finance
- Project-level monitoring and evaluation systems
- Stakeholder Engagement
- Reporting
- Communications

**4.4.** Sustainability

Assess overall risks to sustainability factors of the project in terms of the following four categories:

- Financial risks to sustainability
- Socio-economic risks to sustainability
- Institutional framework and governance risks to sustainability
- Environmental risks to sustainability

**5.** To develop a report with recommendations to the Project Team. There should be not more than 15 recommendations; they should be specific, measurable, achievable, and relevant. A recommendation table should be put in the report's executive summary (XX days).

Expected Output/Deliverable:

1. A draft desk review and MTR inception meeting report (incl. objectives, methods, deliverables, the timeline and the draft table of content of the Midterm Review) – 1 (one) week before the MTR inception meeting, the final version of the document – 2 days after the inception meeting.
2. Presentation of the initial findings to the executing agency's project management (OSCE) and the implementation agency (UNDP) at the end of the field mission.
3. Draft Final Report: Full report with annexes within 2 weeks of the MTR mission.
4. Final Report with recommendations (max 30 pp.,) including:
   - executive summary with findings, ratings where required,
   - lessons learned and recommendations,
   - full narrative report (as per outline below),
   - a table of planned vs. actual project financial disbursements, and planned co-financing vs. actual co-financing for the Project;
   - annexes, including TORs, itineraries, list of persons interviewed, summary of field visits, list of documents reviewed, questionnaire used and summary of results, identification of co-financing, etc.

The final MTR report shall be written in English and shall be presented in electronic form in MS Word format. It will be cleared by the OSCE as an executing agency. If applicable, the Project Coordination Unit (OSCE) may choose to arrange for a translation of the report into a language more widely shared by national stakeholders.

# 7 Annex B - Evaluation Matrix

| Evaluative Questions | Indicators | Sources | Methodology |
|---|---|---|---|
| Project strategy: To what extent is the project strategy relevant to country priorities, country ownership, and the best route towards expected results? | | | |
| To what extent is the project strategy relevant to country priorities and interest? | Assessment of alignment to National strategies, regulations, policies. | Project partners, national level stakeholders, national policies, international commitments, | Interviews, document analysis |
| To what extent is the project owned by the beneficiary countries? | Assessment of level of commitment and engagement, | Co-financing commitments, level of participation, | Co-finance letters, sending people to meetings, timely review of documents, |
| Is the approach laid out in the Project Document the most effective and efficient manner to reach the expected results? | Assessment level of Results Framework and Theory of Change; level of coherence between project design and implementation approach; quality of risk mitigation strategies | Project Document, project partners | Literature review, document analysis, interviews. |
| | | | |

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|---|---|---|---|
| Progress Towards Results: | | | |
| Have overall project outcomes and objectives been achieved, or are on the way to being achieved? | From Results Framework | project documents, national policies or strategies, websites, project staff, project partners, | document analysis, data analysis, interviews with project staff, interviews with stakeholders, |
| Component 1 | From Results Framework | | |
| Component 2 | From Results Framework | | |
| Component 3 | From Results Framework | | |
| Project Implementation and Adaptive Management: | | | |
| Has the project been implemented efficiently and cost-effectively? | Assessment of outcomes against time taken; Assessment of outcomes against costs. | Project Documents, reporting, minutes of SC meetings, GEF Tracking Tool | Document Analysis |
| Has the project been able to adapt to any changing conditions thus far? | Level of flexibility in addressing problems or changing circumstances. | Project Documents, reporting, minutes of SC meetings, discussions with PCU & partners | Document Analysis and interviews. |
| To what extent are project-level monitoring and evaluation systems, reporting, and project communications supporting the project's implementation? | Level of adherence to M&E plan described in Project Document | Project Documents, reporting, minutes of SC meetings, GEF Tracking Tool | Document Analysis |
| | | | |

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| Sustainability: | | | |
| To what extent are there financial risks to sustaining long-term project results? | Assessment level of financial commitment | Documents, national policies, future funding sources, financial commitments, | Literature and document review, interviews. |
| To what extent are there institutional risks to sustaining long-term project results? | Assessment level of institutional commitment | Documents, national policies, regulations, international commitments, | Literature and document review, interviews. |
| To what extent are there socio-economic risks to sustaining long-term project results? | Assessment level of socio (political) economic risks | Documents, media, political statements, partners, | Literature review, interviews, web sites media search, |
| To what extent are there environmental risks to sustaining long-term project results? | Assessment of environmental conditions affecting physical project outcomes. | EIAs where applicable, impacts assessment, TDA, | Literature review, interviews. |

# 8 Example Questionnaire to Guide Interviews

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|---|
| 1. Project Strategy |
| Was the project strategy for the Dniester Project well laid out and has it been to date successful in strengthening the IW portfolio delivery and impact? |
| Do you think it will strengthen the Dniester Commission by the end of the project? |
| 1. Progress towards Results: |
| Where all expected outputs and activities of the project (which you were involved with) delivered as programmed to date, on time and on budget? If not why? |
| Are the indicators used for "measuring success" SMART ? Could they be improved? |
| Has the development of the information platform (websites) to date met your needs and expectations? |
| Were the methods used to develop technical documents (synthesis documents, tool kits) sound and effective to date? |
| Do the technical products have the scientific weight and authority to influence decision makers, national level - international level? |
| Do you believe that the technical products will be used by decision makers? |
| What improvements can be made to the delivery of technical products for the remainder of the project? |
| 2. Project completion and sustainability |
| Are there any risks (financial, social-political, institutional, technical or environmental) which jeopardize achieve the project objectives |
| To ensure that there is continuity and that the intended impacts of the project are realized what aspects of the remaining project need to be emphasized, what additional measures need to take place, or what needs to change? (for example: greater coordination with partners, improve commitment of agencies etc.) |
| 2 Management and Coordination |
| Has the PCU applied management and coordination duties? |
| How has the PCU assisted or hindered your participation in the Project? (for partners, institutions, etc). |
| Has the management and coordination at the activity level been effective? |

| |
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| Could the PCU and Commissioning Unit do any more to enhance management for the remainder of the project? If so what? |
| 3. Financial Management |
| Have financial controls, including reporting, and planning allowed the project management to make informed decisions regarding the budget and allow for a proper and timely flow of funds for the payment of satisfactory project deliverables? |
| Actual project costs (and sub-component costs) compared to budged – are they different , if so, how have they differed and why? |
| What co-financing been achieved to date and is the target likely to be achieved by the project end? |
| Was budgeting and funding both adequate and timely? |
| 4. Institutional Arrangements |
| What institutional factors are present to help achieve or undermine the project goals? How can these be improved upon? |
| 6. Assessment of Monitoring and Evaluation Systems |
| Has monitoring and evaluation tools been effective (Reporting. SC meetings etc.) both for PCU and at the partner level? |
| 7. Adaptability |
| Has the implementation of the project(s) displayed adaptive management in terms of changing circumstances? |
| 8. Stakeholder participation |
| Has the project achieved its goals with respect to stakeholder participation and engagement with all the relevant partners and projects? |
| Were collaboration/interactions between the various project partners and institutions to date been effective and constructive? Have new relationships been developed between partners? |
| 9. Recommendations |
| Are there any recommendations you would have for the rest of the project? |

# 9 Annex D - Ratings Scales

| Ratings for Progress Towards Results: (one rating for each outcome and for the objective) | | |
|---|---|---|
| 6 | Highly Satisfactory (HS) | The objective/outcome is expected to achieve or exceed all its end-of-project targets, without major shortcomings. The progress towards the objective/outcome can be presented as "good practice". |
| 5 | Satisfactory (S) | The objective/outcome is expected to achieve most of its end-of-project targets, with only minor shortcomings. |
| 4 | Moderately Satisfactory (MS) | The objective/outcome is expected to achieve most of its end-of-project targets but with significant shortcomings. |
| 3 | Moderately Unsatisfactory (MU) | The objective/outcome is expected to achieve its end-of-project targets with major shortcomings. |
| 2 | Unsatisfactory (U) | The objective/outcome is expected not to achieve most of its end-of-project targets. |
| 1 | Highly Unsatisfactory (HU) | The objective/outcome has failed to achieve its midterm targets, and is not expected to achieve any of its end-of-project targets. |

| Ratings for Project Implementation & Adaptive Management: (one overall rating) | | |
|---|---|---|
| 6 | Highly Satisfactory (HS) | Implementation of all components – management arrangements, work planning, finance and co-finance, project-level monitoring and evaluation systems, stakeholder engagement, reporting, and communications – is leading to efficient and effective project implementation and adaptive management. The project can be presented as "good practice". |
| 5 | Satisfactory (S) | Implementation of most of the components is leading to efficient and effective project implementation and adaptive management except for only few that are subject to remedial action. |
| 4 | Moderately Satisfactory (MS) | Implementation of some of the components is leading to efficient and effective project implementation and adaptive management, with some components requiring remedial action. |
| 3 | Moderately Unsatisfactory (MU) | Implementation of some of the components is not leading to efficient and effective project implementation and adaptive, with most components requiring remedial action. |

| | | |
|---|---|---|
| 2 | Unsatisfactory (U) | Implementation of most of the components is not leading to efficient and effective project implementation and adaptive management. |
| 1 | Highly Unsatisfactory (HU) | Implementation of none of the components is leading to efficient and effective project implementation and adaptive management. |

| Ratings for Sustainability: (one overall rating) | | |
|---|---|---|
| 4 | Likely (L) | Negligible risks to sustainability, with key outcomes on track to be achieved by the project's closure and expected to continue into the foreseeable future |
| 3 | Moderately Likely (ML) | Moderate risks, but expectations that at least some outcomes will be sustained due to the progress towards results on outcomes at the Midterm Review |
| 2 | Moderately Unlikely (MU) | Significant risk that key outcomes will not carry on after project closure, although some outputs and activities should carry on |
| 1 | Unlikely (U) | Severe risks that project outcomes as well as key outputs will not be sustained |

# 10 Annex E - MTR mission itinerary

A field Mission took place in coordination with OSCE. This included:

23 April (Tue) - Chisinau

1. Ilya Trombitsky, Head of an International Association of River Keepers Eco-TIRAS NGO - 9:30-10:30
2. Andrian Delinschi, Head of Dept on IWRM in MARDE, AGP - 11:00-12:00
3. Nadejda Mazur, National Coordinator (Moldova) - 12:15-13:30
4. Radu Cazacu, Deputy Head of Apele Moldovei (national water agency), AGP - around 15:30-16:30
5. Ruslan Melian, National Lead Consultant on TDA (de facto advisor to Radu Cazacu, sits in Apele Moldovei), AGP 16:30

24 April (Wedn) - Chisinau

6. Ms Valentina Tapis, Secretary of the Ministry of Agriculture, Rural Development and Environment (MARDE), GEF PFP, member of the advisory and guidance panel (AGP) to the project - 14:00, at AMDRM

25 April (Thur) – Kiev

7. Mr Volodymyr Bilokon, Project Manager on Reforms (de facto advisor to Mykola Kuzio), AGP – 11 am 25 April @ MENR
8. Mr Mykola Kuzio, Deputy Minister of Environment and Natural Resources of Ukraine (MENRU, on European Integration), GEF PFP – 12 pm 25
9. Mr Vladyslav Marushevskiy, Head of International Dept in MENRU, GEF OFP – 1 pm at Bilokon's room
10. Mr Rulsan Gavrilyuk, All-Ukrainian NGO National Ecological Centre of Ukraine (NECU) - 2.30 – 3.30 pm
11. Ms Olga Lysyuk, Head of IWRM Dept in the SAWR, AGP – 5 pm at SAWR

26 April (Fri) – Kiev

12. 10 am - Ukrainian Hydropower
13. 11am Call with Oleg Dyakov, Centre for Regional Studies (Odesa).
14. 13:00 Final wrap-up meeting with the GEF / OSCE team

# 11 Annex F - List of persons interviewed

| Name | Position & Contact | Date | Comments |
|---|---|---|---|
| Ms Tamara Kutonova | Regional Coordinator<br>OSCE – GEF Project | 22 - April | On-going communication throughout the evaluation |
| Ms Anna Zhovtenko | National Coordinator (Ukraine)<br>OSCE – GEF Project | 22 - April | Deals with all aspects of the project for the Ukraine |
| Ms Nadejda Mazur | National Coordinator (Moldova)<br>OSCE – GEF Project | 23-April | Deals with all aspects of the project for the Ukraine |
| Vladmir Mamaev | UNDP regional coord for Europe and CIS. | 14-May | UNDP regional oversight, and connect with GEF |
| Hanna Plotynovka | UNECE | 10 - May | Moved from OSCE to UNECE Autumn 2018. |
| Jeffery Erlich | OSCE Coordinator (Ukraine) | 22 - April | Country Office Director-Ukraine |
| Emina Sibic | Chief Fund Administrator<br>OSCE (Ukraine) | 22 - April | |
| Leonid Kalashnyk | OSCE, Office Vienna<br>Leonid.kalashnyk@osce.org | 30 April | Environmental Advisor – head office Vienna |
| Dana Bogdan | Financial Officer<br>Dana.bogdan@osce.org | 30 April | Financial Administration |
| Kateryna Chechel | Communications Specialist<br>Kateryna.chechl@gmail.com | 22 - April | Hired to develop stakeholder and comm strategy |
| Dr. Ilya Trombitsky | Executive Director<br>Eco-Tiras (Int. River Keepers)<br>ilyatrom@mail.ru | 23 April | Key NGO representative that has participated in the commission meetings. |
| Ms Valentina Tapis | Secretary of the Ministry of Agriculture, Rural Development and Environment (MARDE) | 24 April | GEF PFP, member of the advisory and guidance panel (AGP) to the project |

| Name | Position & Contact | Date | Comments |
|---|---|---|---|
| Mr Radu Cazacu | Deputy Head of Apele Moldovei (national water agency) | 23 April | AGPmember |
| Mr Adrian Delinscii | Head of Dept. on IWRM in MARDE | 23 April | AGP member |
| Mr. Ion Lica | GEF OFP ,<br>MARDE | 23 April | Has assisted in input for the TDA. |
| Mr Ruslan Melian | National Lead Consultant on TDA | 23 April | Very knowledgeable regarding environment and basin. |
| Mr Volodymyr Bilokon | Project Manager on Reforms | 25 April | de facto advisor to Mykola Kuzio/ AGP |
| Mr Mykola Kuzio | Deputy Minister of Environment and Natural Resources of Ukraine MENR (European Integration | 25 April | GEF PFP |
| Mr Vladyslav Marushevskiy | Head of International Dept in MENRU, GEF OFP | 25 April | GEF focal point. Says the project is really well run |
| Mr Rulsan Gavrilyuk | All-Ukrainian NGO National Ecological Centre of Ukraine (NECU) | 25 April | NGO. |
| Mr. Mikhail Khorev | Deputy Head of State on Water Resources (SAWR) | | Did not meet -away |
| Ms Olga Lysyuk | Head of IWRM, State Agency on Water Resources (SAWR) | 25 April | Attended commission meetings, very supportive. |
| Sezhii Kucher | Uk-power<br>Deputy Chief of Department of commerce<br>sikucher@uhe.gov.ua | 26 April | |
| Dr. Oksana Huliaieva | Ukyhydro power<br>Senior specialist on Environment<br>o.huliaieva@uhe.gov.ua | 26 April | Attended study tour in Spain-Portugal. Attend expert group on hydropower impacts. |

| Name | Position & Contact | Date | Comments |
|---|---|---|---|
| Oleg Dyakov | Centre for Regional Studies | 26 April | Discussed the demonstration project on Yagarlvic river. |

# 12 Annex G - List of documents and websites reviewed

Treaty between the government of **the Republic of Moldova and the** cabinet ministers of Ukraine on Cooperation in the field of Protection and sustainable development of the Dniester River Basin, signed in Rome 29 September 2012 (2012 Dniester Treaty).

DBC (2018) Preparatory Meeting of Commission on Sustainable Use and Protection of the Dniester River Basin in Chisinau, 5th April, 2018.

DBC (2018) First meeting of the Commission on Sustainable Use and Protection of the Dniester River Basin in Chisinau, 17 September 2018

DBC (2019) Second Meeting of the Commission on Sustainable Use and Protection of the Dniester River Basin in Kiev, 4-5 April, 2019-

OSCE (2018) Study tour on IWRM and implementation of the Albufeira Convention in Spain – Portugal, 19-23 November 2018

OSCE (2019) Report on "Teleconference on recommendations by Mr Pedro Cunha Serra on draft operation rules for the Dniester reservoirs", teleconference, 23 January, 2019

OSCE-PSC (2017) First meeting of the Project Steering Committee in Kyiv, 18 December 2017

OSCE (2017) Inception Workshop - First project kick-off workshop in Kyiv, 18 December 2017

OSCE (2017) Gender Survey and Gender Mainstreaming Strategy

OSCE-PSC (2018) Second meeting of the Project Steering Committee, 18 December 2018, Odesa. 18 December 2018

OSCE (2019) Thematic Report on Hydro power impacts in the Dniester Basin (Draft).

OSCE/UNECE/ENVSEC (2015) Strategic Framework for Adaptation Climate Change in the Dniester River Basin.

OSCE/UNECE/ENVSEC (2017) Implementation Plan for the Strategic Framework for Adaptation Climate Change in the Dniester River Basin.

Serra, Pablo (2019) Recommendations to the draft updated Regulations to operate the water reservoirs of the HPP and PSPP Dniester cascade (final version), February 2019. Available at https://dniester-commission.com/wp-content/uploads/2019/02/Recommendations_operation-rules_Dniester_Serra_Feb2019_Engl_fin_clean.pdf

SAWR (2018) First meeting of the basin council of the Ukrainian part of the Dniester River in Ivano-Frankivsk, Ukraine, 15 November 2018 in Ukrainian – *not read but verified*

UNDP (2017) Project Document for "Enabling transboundary cooperation and integrated water resources management in the Dniester River Basin" (ProDoc).

WG-Hydro (2018) Discussion of key recommendations to the updated draft "Operation Rules of the Water Reservoirs of the HPP and PSPP Dniester Cascade with the buffer reservoir NWL equal to 77.10 m" (Chisinau) 18 September 2018

WG-Hydro (2018) First meeting of the Working Group on Hydropower in the Dniester Basin in Chisinau, 15 March 2018

WG-Hydro (2018) Second working meeting of the expert group on analysis of the impact of Dniester HPP reservoirs on the status of the Dniester in Chisinau, 14 September 2018

WG-hydro (2018) (third) Working meeting of the expert group on analysis of the impact of Dniester HPP reservoirs on the Dniester basin status in Kyiv 18-19 June 2018

WG-Resoration (2018) River restoration meeting (demo project) in Kyiv, 13 September 2018

WG-Tailings (2018) Kick-off meeting to study the current status of tailing dams of the Dniester River Basin in Ivano-Frankivsk, Ukraine, 2 July 2018

WG-TDA (2018) First meeting of the Working Group on Transboundary Diagnostic Analysis (TDA) in Chisinau, 15 March 2018

Zakorchevna, N. (2019) Assessment of Ecosystem Services in the Lower Dniester Basin, DRAFT 7 May, 2019.

| Website | Comments |
|---|---|
| https://dniester-commission.com/en/<br>Dniester River Commission | The DRBC website run by the OSCE as the secretariat to the commission. Well structured, contains all meeting reports and documentation for the GEF project. All publically available. **High degree of transparency.**<br>Has access to both agreements (1994 and 2014),<br>The website even has the ongoing outcomes of the project (But not well updated).<br>Contains all the project and meeting reports-including the most recent DBC meeting in April 2019. |
| State Agency of Water Resources Agency (SAWR) of Ukraine. https://www.davr.gov.ua | Website contains reports of the meetings of the Plenipotentiaries. |
| Facebook page for<br>https://www.facebook.com/vodaif.gov.ua/<br>I am FB-ing a lot on the project ☺))<br>https://www.facebook.com/tamara.kutonova | |
| EU Water Initiative for Eastern Partnership | Web-page outlining the major water |

| | |
|---|---|
| https://www.euwipluseast.eu/ | partnership initiatives under the EUWI project. Many of the activities relate to capacity building in the water sector in Ukraine and Moldova. |

# 13 Annex H - Signed UNEG Code of Conduct form

**UNEG Code of Conduct for Evaluators/Midterm Review Consultants**[1]

**Evaluators/Consultants:**

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study limitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

**MTR Consultant Agreement Form**

Agreement to abide by the Code of Conduct for Evaluation in the UN System:

Name of Consultant: Glen Hearns

Name of Consultancy Organization (where relevant): Eco-Logical-Resolutions

**I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.**

Signed at Vancouver, Canada *(Place)* on 6 April 2018 *(Date)*

Signature: 

[1] www.undp.org/unegcodeofconduct

# 14 Annex I – Strategic Results Framework

| STRATEGIC RESULTS FRAMEWORK | |
|---|---|
| **This project will contribute to the following Sustainable Development Goal (s):** This project is aligned with goals and targets associated with SDG 6 (in particular target 6.5 on IWRM and 6.6 to protect and restore water-related ecosystems), it also contributes to the implementation of the SDG 2 (food security), 5 (gender), 13 (combating climate change and its impacts), 14 (life below water) and 15 (life on land), and will assist the two countries in meeting these targets. | |
| This project will be linked to the following output of the UNDP Strategic Plan:<br>Primary Output 1.3: Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals and waste.<br>Indicator 1.3.1: Number of new partnership mechanisms with funding for sustainable management solutions of natural resources, ecosystem services, chemicals and waste at national and/or subnational level.<br>Secondary Output 2.5: Legal and regulatory frameworks, policies and institutions enabled to ensure the conservation, sustainable use, and access and benefit sharing of natural resources, biodiversity and ecosystems, in line with international conventions and national legislation.<br>Output Indicator 2.5.2: Number of countries implementing national and local plans for integrated Water Resource Management. | |
| | |
| | Objectively Verifiable Indicators |

| Project Strategy | Indicator | Baseline | Mid- term targets | End of Project Targets | Assumptions |
|---|---|---|---|---|---|

| Project Strategy | Indicator | Baseline | Mid- term targets | End of Project Targets | Assumptions |
|---|---|---|---|---|---|
| Project Objective<br>To strengthen sustainable development, through the update of the TDA development and endorsement of the SAP and initiation of its implementation | Indicator 1.3.1: Number of new partnership mechanisms with funding for sustainable management solutions of natural resources, ecosystem services, chemicals and waste at national and/or subnational level.<br><br>Indicator 2.5.2: Extent to which capacities to implement national or local plans for integrated water resource management or to protect and restore the health, productivity and resilience of oceans and marine ecosystems have improved. | Established regional collaboration in adjacent water bodies (e.g. through the ICPDR)<br>EU Association Agreements signed by MD/UA promote use of IWRM approaches. Previous studies (EU, GEF and other) will provide substantial information for development of TDA/SAP and RBMP<br>. | Partnership with Black Sea through EMBLAS<br><br>Agreed analysis of basin with identified transboundary issues (TDA) (and key their causal drivers) | Functional and sustainable joint body for managing the Dniester River basin.<br><br>RBMP/SAP endorsed at 'highest' level within MD/UA Governments as basis for implementing agreed management actions<br><br>MD/UA initiating implementing actions agreed in SAP and progressing with finalizing EU RBMP | |
| | Operational bi-national river authority (commission) functioning with advice from | Currently no regular meeting of binational | Bi-national | 6 bi-national authority meetings | |

| Project Strategy | Indicator | Baseline | Mid- term targets | End of Project Targets | Assumptions |
|---|---|---|---|---|---|
| | expert working groups and involvement from wide range of stakeholders | authority | authority meetings<br><br>3 private sector organisations involved with joint river authority and/or river councils<br><br>At least 3 civil society groups participating in meetings<br><br>10 experts trained on collecting information on the TDA / SAP | 5 private sector organisations involved with joint river authority and/or river councils<br><br>At least 5 civil society groups participating in meetings<br><br>15 experts trained on collecting information on the TDA / SAP | |
| | Countries identify means to implement the SAP/RBMP | | Potential sources of financing for SAP/RBMP implementation identified. | At least 2 potential sources (inc national funds) approached. | |
| Component 1 | | | | | |

| Project Strategy | Indicator | Baseline | Mid- term targets | End of Project Targets | Assumptions |
|---|---|---|---|---|---|
| Outcome 1<br>Science- based consensus among the countries and key stakeholders on major transboundary problems of the basin | Science- based consensus among the countries and key stakeholders on major transboundary problems of the basin. | Data /information not collated for TDA purposes. | Data gaps addressed<br>TDA completed<br>National and TB priorities confirmed.<br>Formally accepted TDA<br>Inventory of 4 mine tailing dams in the Upper Dniester conducted. | Inventory of 6 mine tailing dams in the Upper Dniester conducted | |

| Project Strategy | Indicator | Baseline | Mid- term targets | End of Project Targets | Assumptions |
|---|---|---|---|---|---|
| 2) Understanding current and future priority environmental issues, and their transboundary implications, including potential implications for security, by key basin stakeholders and the public | Scenarios and methodologies for predicting 'water futures' available to basin stakeholders | Climate change scenarios exist however there are no current estimates of water balance. | Water balance calculated considering future water demand and climate change | To be completed by mid-term | |
| 3) Local stakeholders ready to minimize negative consequences for economic sectors as well as the environment in | Local strategy for climate change developed | No local strategies in the Ukrainian part of the basin | The strategy is developed. by the beneficiaries in MD/UA<br>Strategy development and its application involved 3 towns and 10 private | At least 2 funding sources are found for implementation of the strategy<br>Strategy development involved 15 private sector organisations | |

| Project Strategy | Indicator | Baseline | Mid- term targets | End of Project Targets | Assumptions |
|---|---|---|---|---|---|
| the basin | | | sector organisations. | | |
| Component 2 | | | | | |
| Outcome 4<br>Strengthened environmental transboundary cooperation in the Dniester basin | Strengthen bilateral bodies | Three scenarios have been identified which will define the route taken by project.<br>Targets for midterms and end of project will be defined by months 6 | Minimum of two bilateral meetings held.<br>Rules for exploitation of Dniester reservoirs drafted | Five bilateral meetings held<br>Rules for exploitation of Dniester reservoirs agreed upon by the riparians | |
| Outcome 5) Agreed actions to address major | SAP Endorsed by high-level representatives from Moldova and Ukraine | Data partly available but not analysed through TDA process nor | In progress | SAP/international RBMP endorsed by ministers from MD/UA for future implementation | |

| Project Strategy | Indicator | Baseline | Mid- term targets | End of Project Targets | Assumptions |
|---|---|---|---|---|---|
| transboundary problems of the Dniester basin (SAP) with established collaborative mechanism for multi-country cooperation framework | | key transboundary issues validated | | | |
| 6) Involvement of stakeholders in the decision making processes of the Commission and its institutions | Increase in stakeholder involvement in water governance/management and awareness | Broad stakeholder in governance/ management is currently low. | Number of stakeholder organisations increase by 5% from baseline<br>2 meetings of the national River Basin intersectoral councils<br>70 information boards<br>installed along river | Number of stakeholder organisations increase by 10% from baseline<br>3 meetings of the River Basin<br>Committee<br>Gender mainstreaming included in national plans for water management<br>Surveys indicate increased awareness on | |

| Project Strategy | Indicator | Baseline | Mid- term targets | End of Project Targets | Assumptions |
|---|---|---|---|---|---|
| | | | Successful completion of 1 competition for 'Eco Dniester Start-ups'<br>Completion of one kayak expedition<br>Surveys indicate increased awareness on water/ | water/environment by 20% | |
| 7) Project experiences and lessons disseminated globally | Number of lessons/experiences disseminated | none | At least 1 GEF Experience Notes completed | At least 3 GEF Experience Notes completed | |
| | Number of national stakeholders trained | | 3 inter-sectoral meetings facilitated<br>15 twinning/exchange participants<br>Minimum 5 representatives of | 6 inter-sectoral meetings facilitated<br>30 twinning/exchange participants | |

| Project Strategy | Indicator | Baseline | Mid- term targets | End of Project Targets | Assumptions |
|---|---|---|---|---|---|
| | | | Hydromet took up half capacity building long-term course | | |
| Component 3 | | | | | |
| 8) Stronger information base and better accessibility of the relevant information in the Dniester basin for the joint management of water resources | Establishment of framework for flood early warning and forecasting | No international flood early warning system available | Agreements between MD/UA on procedures | Approved framework for flood forecasting and warning<br>Warning procedures adopted for use by<br>bi-national river authorities | |
| 9) A coordinated institutional and legal framework for access to and exchange of | Agreement on data exchanges and monitoring with Improvements on hydro-met services | | Procedures for data exchange drafted<br>An information platform within the adequate institutions with | Agreed procedures for inter-sectoral exchange of information and ensured access of public to data | |

| Project Strategy | Indicator | Baseline | Mid- term targets | End of Project Targets | Assumptions |
|---|---|---|---|---|---|
| information from monitoring and other sources, including the use and further development of the Dniester basin GIS involving stakeholders from the whole basin | | | hydromet information in place | | |
| 10) Improved capacities for monitoring in the basin, and the partial implementation of the agreed monitoring and information exchange programme | Implementation of pilot demonstration project | | 3 pilot demonstration project initiated and in-progress<br>Stress reduction targets for pilots defined and agreed by 2nd PSC meting | 3 demonstration projects completed and results guiding SAP and RBMP finalization<br>All demo projects have agreed replication / upscaling strategy | |
| | Increased availability of basin-wide information | | 130 participants attend a Dniester River Basin | 6 Press conferences related to basin | |

| Project Strategy | Indicator | Baseline | Mid- term targets | End of Project Targets | Assumptions |
|---|---|---|---|---|---|
| | | | Conference<br>50 NGOs participated in Dniester NGO Forum (event parallel to Conference)<br>3 Press conferences related to basin<br>30 journalist take part in media engagement activities<br>Hydro-met information exchange system | Conference proceedings are published<br>Hydro-met information exchange system operational and data are open to public<br>50 journalist take part in media engagement activities | |
| | Project website functional and number of visits | | Website operational<br>Reported number of website visits – 1500 | 3000 reported number of site visits | |
| | Participation in GEF IW | | Project | 10 Dniester participants | |

| Project Strategy | Indicator | Baseline | Mid- term targets | End of Project Targets | Assumptions |
|---|---|---|---|---|---|
| | Conference and IW:LEARN exchanges | | represented (PCU/National participation) at IWC 9 | attend IWL sponsored exchanges | |