Public Disclosure Authorized

# Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 16-Jun-2020 | Report No: PIDC28856

## BASIC INFORMATION

### A. Basic Project Data

| Country | Project ID | Parent Project ID (if any) | Project Name |
|---|---|---|---|
| Moldova | P173076 | | Moldova Water Security and Sanitation Project (P173076) |
| **Region** | **Estimated Appraisal Date** | **Estimated Board Date** | **Practice Area (Lead)** |
| EUROPE AND CENTRAL ASIA | Dec 09, 2020 | Mar 16, 2021 | Water |
| **Financing Instrument** | **Borrower(s)** | **Implementing Agency** | |
| Investment Project Financing | Ministry of Agriculture Regional Development and Environment,Ministry of Finance | Public Institution for Projects in the Environmental Field | |

**Proposed Development Objective(s)**

To increase access to improved water supply, sanitation (and irrigation) services in selected rural areas and small towns, and to strengthen institutional capacity for delivery of water supply, sanitation (and irrigation) services

## PROJECT FINANCING DATA (US$, Millions)

### SUMMARY

| | |
|---|---|
| **Total Project Cost** | 50.00 |
| **Total Financing** | 50.00 |
| **of which IBRD/IDA** | 50.00 |
| **Financing Gap** | 0.00 |

### DETAILS

**World Bank Group Financing**

| | |
|---|---|
| International Bank for Reconstruction and Development (IBRD) | 50.00 |

| Environmental and Social Risk Classification | Concept Review Decision |
|---|---|
| Substantial | Track II-The review did authorize the preparation to continue |

Other Decision (as needed)

## B. Introduction and Context

Country Context

1. **Despite many years of solid economic growth and impressive poverty reduction gains, Moldova remains vulnerable to economic and financial shocks and political instability.** Moldova, one of the poorest countries in Europe, is a small landlocked country between Romania to the west and Ukraine to the north, east and south. The country is home to 2.9 million people with a Gross National Income (GNI) per capita of US$4,560, placing it at the upper end of lower middle-income economies. Moldova has made significant progress in reducing poverty and boosting shared prosperity: with average annual growth of 4.6 percent since 2000, poverty has decreased dramatically, while growth has also benefitted more citizens. Inequality, as measured by the Gini Index, has declined from 36.4 in 2000 to 26.0 in 2017. The national poverty rate (below US$5 per day) dropped from 68 to 11.4 percent between 2000 and 2014, although revised poverty estimates that account for Moldova's demographic and migration trends show a less optimistic picture, with estimates as high as 48 percent in some raions. After the 2014-15 large-scale banks fraud, country faced weaker external flows and a severe drought, that put the economy into recession. Recovery and progress over the past five years are now again threatened by the impact of the COVID-19 pandemic, which is expected to be significant, with the economy in a recession in the second quarter of 2020. The magnitude of the social and economic impacts is still to be assessed and it will depend on the duration of the crisis. The recovery is subject to many uncertain factors, including the recovery of the main trading partners (EU) as well as adverse weather (a lengthy drought in early 2020).

2. **There are considerable downside risks for sustainable growth in Moldova**. These risks relate to a fragile fiscal situation, including inefficient public spending, a large state footprint in the economy, and stem from unresolved institutional and governance challenges. With recession looming in 2020, fiscal deficit will hit the record high of close to 6 percent of GDP, lifting the public debt to above 33 percent of GDP ahead of the upcoming IDA graduation. Moldova's productivity is decelerating, and labor productivity is one of the lowest in Europe. Much of Moldova's economic growth has been fueled by worker remittances from abroad, while capital deepening and labor contribution to growth have been declining or stagnating. Total factor productivity has been negative at times, driven by a limited pool of labor and skills needed by the market, low exports, and a limited value added of exports. The composition of Moldova's goods export basket has shifted in the past decade, with machinery, vegetables, and other food increasing in importance. Yet goods exports remain low at 18 percent of GDP, and trade with the EU is constrained by inability to meet EU standards. Private sector contribution is constrained by an unlevel-playing field due to governance, business environment and competition constraints. State-owned enterprises account for almost one-third of Moldovan GDP, and up to one-fourth of workforce, and are characterized by several inefficiencies. Finally, despite efforts to improve Moldova's human capital, notably in education reform and skill development, overall labor participation is low at 43 percent in 2018 and an inadequately educated workforce constitutes the main business obstacles according to 20 percent of firms (Enterprise Survey, 2019).

3. **Moldova's demographic trends exert additional stress on its development, and inequalities in basic services persist**. Moldova remains the poorest country in Europe, while citizens' aspirations are rising in line with living conditions and income levels of middle and higher-income European neighbors. Emigration of the working-age population and an annual population decline of around 1.5 percent add to the country's economic, fiscal, and social fragility. Based on

existing trends, Moldova may lose a fifth of its current population by 2050. Poverty is concentrated in rural areas where livelihoods depend on agriculture, which employs 80 percent of poor Moldovans and 70 percent of the bottom 40. Rural livelihoods are increasingly at risk due to climate change. While roughly 60 percent of the population live in rural areas, 84 percent of the poor are concentrated there. Specifically, Moldova's large share of female-headed households (41 percent) are vulnerable due to combined effects of outmigration and aging. Rural areas felt the impact of the 2007 and 2015 droughts much more than urban areas, where stocks of agricultural produce ran dry for many rural households, and prices and expenditure in households' budgets for food and energy grew rapidly. A new drought at the beginning of 2020 may endanger the agriculture production in 2020. Public service delivery in rural areas lags behind urban areas on all fronts, including education, health, water and sanitation.

### Sectoral and Institutional Context

4. **Water security underpins much of Moldova's ability to rekindle dynamism in its economy, to realize health and well-being outcomes for its people and achieve environmental goals**. Moldova's water resource endowments need to be harnessed to leverage the productive dimensions of water for the economy, such as agriculture and business development that can help diversify the economy and increase exports. Water security also means that citizens - both urban and rural - can live productive lives, in a clean environment, using reliable water services, and with livelihoods that are resilient to droughts, pollution, or environmental degradation. Moldova's future climate is uncertain, although most climate models predict a warming and drying effect with more frequent and intense droughts and floods.

5. **The World Bank's Water Security Diagnostic and Future Outlook showed that physical water resource endowments are not a real constraint to development**. Rather infrastructure, its financing, and weak institutions are the major water security challenges facing the country. The diagnostic highlights several pressing challenges to Moldova's water security, such as (i) inequalities in access and inadequate quality of water supply in small towns and weak performance of service providers; (ii) poor environmental health and environmental pollution due to lack of sanitation and wastewater treatment; (iii) weak institutions and unresolved reform areas which undermine progress and hinder programmatic delivery of services, (iv) limited modernization of irrigated and climate-smart agriculture to transition to high-value cultivation and protect rural livelihoods, and (v) weak capacity to manage water resources in an integrated and climate-resilient manner. The country requires significant investments across a range of water-dependent sectors if its growth and development ambitions are to be realized, while increasing resilience to economic and climate-related shocks.

6. **Climate change poses the biggest external risk to water security, assuming a future climate that is much drier by 2050**. With increasing future water demand for municipal, industrial, and irrigation use, average water shortages remain modest, but mask vulnerability in specific catchments in drier years. With more intense and frequent droughts, rural livelihoods will be difficult to sustain, unless investments in modernizing irrigation and climate-smart agriculture are scaled up. Future investments, policies and management should focus on economically optimizing water allocations, climate-resilient planning of investments, efficiency measures across all sectors and diversifying and augmenting resources. Restoring the quality of surface water is a priority to ensure water security. Groundwater remains a strategic source for drinking water, and potentially for future supplemental irrigation, although its quality and quantity need to be better understood through future assessments.

7. **Water Security challenges are intertwined with the unprecedented social, economic and health impacts resulting from the COVID-19 pandemic, that will be felt for several years to come**. Firstly, to build resilience for future outbreaks and curb infection rates, accelerating access to water, sanitation and hygiene (WASH) at home, in workplaces, in schools, health centers and public places is essential for people to practice critical handwashing behaviors. The essential nature of WSS services requires business continuity plans as well as liquidity support measures if revenue generation of utilities will be further impacted due to the economic downturn. Secondly, the recession will require all possible measures

to stimulate jobs and private sector growth. Modernization of agriculture and irrigation is key for Moldova's economic recovery. Rural livelihoods can be protected, and jobs generated through labor-intensive public works programs, employment in higher-value cultivation, and spin-offs in the agro-food processing industry. Thirdly, climate-resilient agriculture and irrigation mitigates disruptions in food supply chains and ensure continued food security for Moldova.

8. **Water security is central to the Government of Moldova's (GoM) Action Program and the National Water Supply and Sanitation Strategy 2014-2028 sets ambitious targets to accelerate progress towards meeting the Sustainable Development Goals (SDGs).** A draft Action Plan for Irrigation 2020-2023 has been developed and is pending approval of the Government. Despite these efforts, implementation gaps remain, investments are low and further reforms of its sector institutions are needed. These include building an effective national platform for water supply and sanitation (WSS) development, as well as reforming its water agency to monitor and manage resources abstraction and allocations at the basin level and oversee irrigation service delivery.

9. **Moldova's water and sanitation shows stark inequalities in rural areas.** Systems, often build in Soviet times, are in poor condition due to lack of investments and maintenance, undermining service quality and efficiency. Despite gains, urban access to piped water is around 90 percent, while in rural areas only 48 percent of people have water on their premises. One in three rural dwellers is served by a publicly managed water supply and almost a million Moldovans rely on self-supply through polluted wells for their drinking water, with 80 percent not compliant with drinking water norms (e.g. nitrates, e-coli) . Only one in eight rural households have a flush toilet and sewer systems are near absent in small towns and villages. Collection rates of wastewater in urban areas are low and the treatment rate is even lower. Out of 1,214 water systems, only 141 have a functional sewerage system, and only 91 have some form of treatment. Most wastewater treatment plants are deteriorated and discharge untreated wastewater directly into rivers. While no comprehensive data on WASH in health care facilities is available, UNICEF's situation analysis highlights that 45 percent of rural schools have no in-door toilets, relying on outdoor facilities often without handwashing basins, and 69 percent have no running water.

10. **Overall, the quality of water supply service has improved, although technical and financial performance across service providers varies and many require support to realize efficiencies**. Utilities merely cover operational costs and cannot support capital investments or capital maintenance. Weak management capacities, outdated equipment and infrastructure translates into high non-revenue water (NRW) losses, inefficient operations, and low staff productivity. Utilities in Moldova could reap large benefits from efficiency measures, specifically on energy costs, improving the financial viability of the sector. Despite rising tariffs, Moldova's WSS services remain largely unsustainable and depend on transfers and capital subsidies from central and local government.

11. **Moldova's irrigation sector suffered from decades of under-investments and as a result the actual irrigated area is very low.** There has been a dramatic decline from 310,000 ha equipped for irrigation in 1996 to 108,000 ha in 2018. However, a large majority of the remaining central systems are either obsolete or dysfunctional. The area currently irrigated is estimated at around 7,000 ha, of which two thirds under central schemes, and a third under private small-scale irrigation systems tapping into local streams or ponds. The development of small-scale private irrigation systems, helped through Government subsidy schemes, as well as new management models for rehabilitated central irrigation systems are starting to show modest success. Challenges in uptake remain, due to weak institutional support and constraints in broader enabling conditions, such as value-chain linkages and limited and access to finance and knowledge, with female farmers being even more disadvantaged.

12. **At national level the Ministry of Agriculture, Regional Development and Environment (MARDE) has the policy mandate for resource management, water supply and sanitation and irrigation, as well as other sectors** (environment,

regional development, agriculture). It has retained a small department on water policies, including WSS, and a department on regional development, resulting from rationalization as part of administrative reforms. Moldova's legal framework decentralizes public services, including WSS, to local public authorities and Law 303 on public water supply and sewer services sets service standards and assigns roles and responsibilities of different authorities. In 2014, the National Agency for Energy Regulation (ANRE) was assigned for economic regulation and licensing requirements for some WSS operators were introduced. There 44 licensed WSS operators in urban areas and towns. At village level, over 900 local operators – mostly organized as communal enterprise deliver services. While successful models of regionalizing water supply and sanitation services at the raion level are ready for replication, solutions to tackle fragmentation are needed

13. **Several reforms to its institutional framework were enacted in recent years, but fundamental gaps remain in the overall water sector architecture that significantly impact sector performance**. Key issues are lack of clarity on some institutional roles, missing (or not-executed) functions, as well as uncoordinated infrastructure planning and implementation. Apele Moldovei, Moldova's Water Agency, subordinate to MARDE, is responsible for implementing policies in terms of water resource management at basin level, abstraction management, allocation and water supply and sanitation. As per Law 171 on Irrigation Water User Associations (WUAs), it oversees a dozen of WUAs that manage rehabilitated state-owned central irrigation systems under a lease arrangement. At the same time, several loss-making state irrigation enterprises remain under Apele Moldovei. Thus far, Apele Moldovei has played a limited role in WSS, other than as owner of some water transfer infrastructure. The long-anticipated reform of Apele Moldovei has not yet taken place, leaving the future management of central irrigation systems and the management of water resources at the basin level unclear. With limited capacities in MARDE's policy unit and in Apele Moldovei a dedicated WSS sector development entity is missing, that coordinates investments planning, monitors outcomes, leads performance improvement programs and provides technical assistance to rural and urban operators and local governments.

14. **Current levels of investments in the sector are just 1.4 percent of Government expenditure or 0.5 percent of GDP in 2017, far below the levels to reach the SDGs**. Current levels of expenditure for WSS, around US$ 30-35 million annually, are only half of the requirements to reach the SDG targets. Local expenditures on WSS by Local public Authorities (LPAs) have been estimated at around US$ 5 per capita or less, while urban LPAs receive significantly more. Over 60 percent of on-budget expenditures were channeled to urban water supply and sanitation, while only 13 percent went to communal WSS infrastructure, and nine percent to irrigation and drainage. The National Regional Development Fund (NRDF) and the National Environment Fund (NEF) are the most important sources of Government financing. The NEF and NRDF have different institutional implementation mechanisms, with NEF executed directly by LPAs and the NRDF executed through Regional Development Agencies (RDAs) that have well-staffed structures, benefiting from donor support. The performance record of the NEF is poor, characterized by weak results-orientation, lack of quality assurance, delays in execution of approved projects, as well as major transparency and governance issues. Unfortunately, the various funding mechanisms for WSS have not yet been consolidated in a coherent national program, under leadership and coordination of a national entity (or unit) for WSS sector development.

15. **Previous Bank experience in the WSS sector demonstrated that a comprehensive long-term approach is needed that establishes a fit-for-purpose national institutional framework**. In addition to addressing specific investment and performance issues at service provider level, complementary interventions are necessary to correct governance failures, complete unresolved reform efforts, address strategic planning and coherent financing, and strengthen institutions.

Relationship to CPF

5. **There is a clear rationale and a pressing need for a transformational operation addressing the sustainability of water supply and sanitation in Moldova.** Over the past decade, the Bank's WSS sector engagement focused on

investment-driven interventions, with mixed results in addressing larger sectoral issues. With the graduation of Moldova from IDA to IBRD and building on the lessons leant from previous WSS operations and the Water Security Diagnostic and Outlook, the rationale for an operation that can respond to the immediate needs of delivering services while also addressing root-cause institutional failures is clear.

6. **The proposed lending operation is closely aligned with the World Bank's twin goals of ending extreme poverty and boosting shared prosperity, and more specifically, with the FY18-21 Country Partnership Strategy between the Republic of Moldova and the World Bank.** By improving access to sustainable WSS services with a focus on lagging regions and small towns and rural areas, the operation directly contributes to two of the three identified pathways for tackling key constraints towards achieving the twin goals within the country: (1) economic governance, and (2) service governance, and supplemented by (3) climate change as a cross-cutting theme. More specifically, the Project will contribute to the strengthened management of public sector assets, improving efficiency, quality and inclusive access to public services. The Project will contribute to the World Bank's twin goals to end extreme poverty and promote shared prosperity in a sustainable manner by reducing the vulnerability of rural households, which represent a disproportionately high share of the bottom 40 percent, to the impacts of climate change. The project also is aligned with the country gender action plan.

## C. Proposed Development Objective(s)

7. The Project Development Objective (PDO) is to increase access to improved water supply, sanitation (and irrigation) services in selected rural areas and small towns, and to strengthen institutional capacities for supply, sanitation (and irrigation) service delivery.

8. Access to improved water supply and sanitation services refers to expanding services to so-called 'safely managed' services for water supply and sanitation. For water supply this means that services are delivered on premises, are reliably available and free of contamination[1]. For sanitation, this means that services are delivered through an improved, not shared facility at the household level, with safely managed collection, treatment and disposal[2]. Both indicators directly contribute to results captured through the corporate core indicators[3]. Increasing irrigation services is as for now tentatively included (between brackets) and this part of the PDO may be dropped if the irrigation component will not be continued upon further dialogue with the CMU and the client.

9. Strengthening institutional capacities for water supply and sanitation service delivery refers to both national level planning and sector development capacities, as well as to improved operational efficiency and delivery at utility level. Institutional capcity for irrigation service delivery is tentatively included, referring to both national planning for irrigation, as well as capacities of Water User Associations for service delivery to farmers.

### Key Results

10. The following PDO results indicators are currently being considered as per the different elements of the PDO.

[1] Safely managed drinking water is aligned with the JMP definition of the SDG service ladder. It includes water is available on premises, available when needed, and free of contamination.
[2] Safely managed sanitation is aligned with the JMP definition of the SDG service ladder. It includes an improved toilet facility, not shared with other households, and with adequate treatment and disposal (can be on-site or off-site)
[3] These are "increased access to an improved water source' and 'increased access to an improved sanitation facility';

| | Indicator |
|---|---|
| Increase access to WSS services | i. Number of people provided with safely managed drinking water services (male/female)<br>ii. Number of people provided with safely managed sanitation services (male/female) |
| Increase access to irrigation services (tentatively) | iii. Number of people provided with improved irrigation and drainage services (male/female) |
| Institutional capacities for water supply and sanitation service delivery | iv. Number of WSS operators achieving increase in operational performance (operational cost recovery)<br>v. National Water Supply and Sanitation Sector Development and Investment Plan and Financing Strategy prepared for government endorsement |
| Institutional capacities for irrigation service delivery (tentatively) | vi. National Irrigation Development Strategy and Investment framework prepared for government endorsement<br>vii. Number of Water user Associations increasing their operational performance (operational cost recovery) |

## D. Concept Description

**Proposed Project Components**

21. Given the urgency to deliver tangible benefits for citizens and businesses, the project will finance priority water supply and sanitation investments to expand access, improve performance, enhance efficiency and build resilience of service providers. Investments will be underpinned by sector modernization and institutional reforms, including building a national platform to develop the water supply and sanitation sector and strengthening water resources management for water security. The project will develop an irrigation strategy and investment framework, and implement priority measures to improve irrigation services, build capacities of water user associations, water management entity and foster resilient rural livelihoods. The project comprises the following component with a proposed envelope of US$ 50 million IBRD resources and a tentative resource allocation, as follows.

| | | million US$ |
|---|---|---|
| Component 1 | Access and quality of WSS services in rural areas and small towns | 36.0 |
| Component 2 | Irrigation development and planning for resilient rural livelihoods | 5.5 |
| Component 3 | Sector modernization program for water security | 7.0 |
| Component 4 | Project Management | 1.5 |
| Component 5 | Contingency Emergency Response Component (CERC) | 0 |

11. Possibilities will be further explored to mobilize additional grant resources to co-finance component 3. Discussions with the Austrian and Swiss government are ongoing in this respect (up to additional US$ 2 million in total). The project will be national in scope, involving a raion and commune selection process to target technical and investment in accordance with a set of eligibility and readiness criteria (initial priority list as discussed with the Ministry of Agriculture, Regional Development and Environment) (MARDE) included in Annex 1).

**Component 1: Access and quality of WSS in small towns and rural areas (US$ 36 million)**

12. This component focuses on the short- and medium-term delivery of critical WSS infrastructure and services in small towns and rural areas. It focusses on both delivery of services to households, businesses, as well as improving WASH in social institutions

**Sub-component 1.1 Water supply and sanitation in small towns and villages (US$ 34 million)**

13. This component would take a two-staged approach in the preparation of the sub-projects that provide centralized public water supply and sanitation solutions: i) identifying a first batch of sub-projects with high social and environmental priority and high readiness to deliver quick benefits, and ii) using a framework approach to identify further priority sub-projects aligned with government programming (e.g. under NRDF and a future national WSS investment plan). In support of the SDG's universal access agenda, this component may also include innovative solutions beyond centralized systems, especially in areas where networked solutions may not be technically or financially feasible. In selected areas, the project will pilot self-supply solutions such as targeted incentive schemes for households to improve indoor water supply reliability and quality as well as on-site sanitation, combined with technical support to manage risks and monitor delivery.

14. A thorough screening of ongoing, planned, and already pipelined water supply and sanitation subprojects is ongoing. Several water supply projects have recently been completed (or are in final stages), where bulk water supply infrastructure has been put in place (source, treatment, distribution mains). These systems offer cost-effective opportunities to expand services to rural villages, with rural LPAs delegating the services to raion WSS operators. Annex 1 provides a tentative overview of priority sub-projects, with relatively high level of readiness in terms of feasibility studies and preparatory documentation. This will require further validation and expansion in close dialogue with GoM[4]. The framework approach to identify the second batch of projects will be informed by criteria such as cost-effectiveness, management arrangements, as well as poverty rates at raion level (see Annex 1)[5] and complimentary to investments by other development partners.

15. In terms of sanitation investments, an assessment was undertaken to identify small towns (> 10,000 population) where investments would likely have a high impact, based on criteria such as i) high environmental pressure, ii) high levels of existing water supply connection rates, iii) scale, and iv) inclusion in Government planning documents. Using these criteria, Soroca town, currently operating without any treatment is a national priority, directly polluting the Dniester river upstream of the major water intake for Chisinau, Moldova's capital. Other smaller towns and villages still need to be identified, while considering a mix of central solutions (small-scale treatment plants, wetlands, etc.) as well as on-site solutions, e.g. septic tanks and provision of sludge emptying service chains.

16. Adequate management arrangements and provisions for cost recovery tariffs will be put in place. While the new assets will be owned LPAs (or raion administrations), the project will facilitate delegation arrangements for the O&M to WSS operators in the nearest raion centers[6], allowing for professional management and sustainability. Tariffs will be developed and endorsed as per the existing regulatory framework that requires full cost recovery. This service delegation

[4] All sub-projects thus far identified have an unsatisfactory level of drinking water supply or no service at all and are synergistic with bulk water supply investments that have already been partially constructed.
[5] Other than Chisinau and Balti city, poverty rates in other raions are in the range of 30-48 percent. High poverty is found in Stefan Voda, Leova, Telenesti, Soldanesti, Rezina, Nisporeni, Hincesti, Singerei, Floresti, Falesti, Donduseni, and Soroca.
[6] These delegation arrangements stipulate royalty payments that flow into a WSS development fund. With permission of the LPAs, operators can tap into the fund to finance investments for further expansion and future rehabilitation.

model has been implemented successfully over recent years, especially if combined with adequate technical assistance and facilitation support among local stakeholders and meaningful community outreach and engagement activities. LPAs maintain ownership and oversight of the service. Further due diligence and clarification of investment responsibilities and royalty fees will be addressed in preparation.[7]

**Sub-component 1.2 Strengthening WASH for future resilience (US$ 2 million)**

17. This component will support the medium-term recovery and future resilience to COVID-19 outbreaks by focusing targeted investments in WASH facilities in public institutions such as in rural schools, health care facilities as well as public places such as markets, transport hubs, etc. The project would also support national hygiene behavior change campaigns informed by individual and social determinants. Considering the continued need to suppress COVID-19 the project would support an at-scale and sustained handwashing behavior campaign in the country. This component, and specifically the targeting of limited resources for WASH infrastructure development in public institutions, will be further designed in coordination with the Ministry of Education, Culture and Science, and the Ministry of Health, Labour and Social Protection and in view of how the ongoing Bank-financed Health and Education portfolio address these needs.

**Component 2: Irrigation development and planning for resilient rural livelihoods (US$ 5.5 million)**

18. This component focuses on priority measures that can help foster a long-term at-scale engagement in irrigation modernization and climate-resilient agriculture. It will develop an irrigation strategy and investment framework, that addresses institutional bottlenecks and is embedded in broader rural and agricultural development policies. It also will pilot catalytic high-priority investments to demonstrate immediate gains, while strengthening capacities of relevant stakeholders. This component is tentative and will be confirmed/modified or dropped in the course of preparation.

**Sub-component 2.1 National irrigation development strategy and investment framework (US$ 2 million)**

19. This sub-component finances the preparation of an irrigation development strategy and investment framework, informed by river basin plans, regional and rural development plans, while further climate-proofing a proposed priority program of investments. The strategy would encompass both irrigation development in larger central systems, as well as small-scale private sector development and will address critical bottlenecks affecting the irrigation sector. It will set realistic targets of area development, financing needs, institutional arrangements and expected outcomes. The investment framework will be embedded in a broader agricultural strategy, including measures to improve resilience of rainfed agriculture, and addressing enabling conditions for farmers (e.g. extension services, access to finance, value-chain linkages, etc.). This sub-component would also finance: i) finance feasibility studies and technical design documentation for priority investments projects (rehabilitation of central systems)[8], ii) capacity building support for Apele Moldovei to support and monitor WUAs performance, and for better abstraction and water allocation management[9], iii) the development of an asset management system for state-owned irrigation systems[10] , and iv) the revision of norms and technical standards for design and construction of central irrigation systems to optimize life cycle costs.

[7] The development of delegation contracts, royalties and the WSS development fund are new aspects introduced since March 2019 in the WSS Law.
[8] That could be financed under a separate Bank operation focused on irrigation modernization and agriculture development.
[9] Building on achievements of ongoing projects (e.g. the Institutional Framework Strengthening Project that will close in 2021)
[10] Including the gradual liquidation of state irrigation enterprises and transfer of functional assets to Apele Moldovei

**Sub-component 2.2 Local irrigation development support for resilient livelihoods (US$ 3.5 million)**

20. This sub-component would support resilient livelihoods for male and female farmers, who either already use some form of supplemental irrigation, or - due to lack of irrigation access - are mostly involved in rainfed farming. Critical for export growth of higher value agriculture is the expansion of access to irrigation water supply, combined with promoting on-farm modern irrigation practices (such as sprinkler, precision drip irrigation, etc.). In line with the Government's draft Irrigation Action Plan and the ongoing transfer of central irrigation systems to newly created WUAs, this sub-component will carefully identify a few locations for piloting to demonstrate immediate gains. It will support investments and technical assistance measures to accelerate the shift to higher value cultivation, building on previous lessons[11] in Moldova, and ensuring that targeted measures are included to ensure that female producers are equally benefiting. High-priority systems will be carefully selected, informed by market conditions, land use patterns, existing high value cultivation practices and other conditions that would be conducive for the uptake of irrigation services under a WUA model[12]. It will finance investments to modernize the systems (including energy efficiency, reducing overdesign, infrastructure rehabilitation, etc.) and complementary measures for modernization of on-farm practices, while facilitating access to existing subsidy[13] programs. Local capacity building for WUAs and male and female farmers will be provided, focused on climate-resilient agronomical and irrigation practices, facilitating value-chain linkages and transparent WUA management. The project will promote female representation in WUA management structures and membership base (which is tied to land-use).

**Component 3: Sector modernization program for water security (US$ 7 million)**

21. This component will focus on long-term sector development, in terms of planning, financing, institutional implementation capacities, regulatory aspects, monitoring and sustainability support functions, as well as lifting performance through modernization. The use of a PforR instrument may be conducive to ensure that activities will lead to outcomes and that new frameworks and instruments are adopted and capacities sustained. Component 3.3 is tentative and will be confirmed/modified or dropped as part of the preparation process.

**Sub-component 3.1 Strengthening WSS planning and management capacities**

22. This sub-component will finance a National WSS plan and financing framework, that would include both technical, institutional and financing elements and be the basis for future investment planning, aligning domestic funding streams and development partner support. Without such a plan, the full impact of infrastructure projects will remain fragmented and adequate and coherent programmatic financing will continue to be a challenge. Feasibility and project preparation documentation for a prioritized investment program will also be financed.

23. In addition, this sub-component will finance national-level capacity building measures to ensure investment coordination and quality of execution, develop monitoring, oversight and technical support functions for local and raion operators, and provide technical assistance to facilitate further regionalization of services. As of now, there is no lead entity with sufficient capacity and mandate to develop and coordinate the execution of a national investment program, develop transparent outcome monitoring and benchmarking, set-up technical assistance mechanisms to large and small operators, and lead a nation-wide performance improvement program to support modernization. The project will support

[11] Under SDA Compact program, uptake of irrigation services was low due to insufficient attention to enabling conditions.
[12] A comprehensive assessment of the enabling conditions and investment needs for these schemes would need to be conducted.
[13] Such as offered by the Agency for Interventions and Payments (AIPA) to encourage investments in high value cultivation.

MARDE to develop such a structure and address the "missing functions". Investment coordination, a primary function of the proposed entity, should increase the coherence and effectiveness of investment funds (and potential consolidation of NEF and NFRD).

24. The project will also provide technical assistance to strengthen capacities for regulatory compliance of licensed water operators as well as information systems for ANRE. While comprehensive legislation for economic regulation is in place, digitalization of application processes (e-governance) could be supported, as well as developing capacities of operators in this respect. For non-licensed smaller operators, the project will explore alternative mechanisms to guide tariff setting and introduce incentives to aggregate with raion-operators. In this context, the project will also explore affordability of tariffs, as well as existing or – to be strengthened - social support measures to ensure that vulnerable households are able to connect to water and sanitation systems (leveraging existing national poor identification systems).

**Sub-component 3.2 Improving efficiency and performance of service providers (US$ 4 million)**

25. The sub-component will finance a program for improving capacities and performance of raion service providers in Moldova. Its initial focus will be on those operators where investments under the project are targeted, while potentially expanding it a larger number of operators, deploying result-based incentives grants to improve performance and efficiency of services[14]. In the context of the COVID-19, special attention will be paid to business continuity planning, risk communication to customers, and broader resilience planning in anticipation of climate change impacts. Operators will be supported to develop an immediate 100-day action plan to improve performance, targeting quick wins and, in parallel, develop longer term plans. This will be done by leveraging the Bank' expertise in supporting utility innovation and modernization[15]. Performance improvement activities will then be formulated and financed where appropriate, and focused on efficiency, financial sustainability and customer relations (e.g. NRW reduction activities, energy efficiency[16], asset management, metering and citizen engagement/communication). Further discussion is needed whether performance-based conditions should be introduced, linked eligible expenditure to outcomes of operators (under a PforR approach for example).

**Sub-component 3.3 Groundwater assessment and information management for water resource management (tentative)**

26. Sub-component 3.3 will finance a groundwater assessment which will inform the national WSS investment plan. Information management systems for groundwater and surface water management will also be improved with support of the Project. Groundwater remains a key asset for Moldova, but additional scientific studies are required to assess its quality, quantity, and utilization potential for various purposes[17]. Existing groundwater explorations date back from the 60s and 70s and quality exploration is only partially available and not easily accessible. Capacities for groundwater data management systems, linked to the national Water Information System (WIS), will be strengthened among Apele Moldovei, and MARDE subordinate entities (Agency for Geology and Mineral Resources, Environmental Agency, etc.).

[14] Depending on the choice of instrument, such program could be expanded with incentives for expansion of service provision, leverage other funding sources towards results.

[15] Moldova will be a pilot country in ECA under the "Utility of the Future" initiative, with BETF under the Global Water Security and Sanitation Partnership.

[16] Where possible GWSP and ESMAP resources will be mobilized to support energy management planning, energy audits and explore financing mechanisms for energy efficiency investments (during preparation).

[17] Such as for drinking water, particularly when surface water transfer schemes are too costly. Also supplemental use of groundwater requires further analysis, including soil risk mapping, due to the interaction of water quality and soil type.

**Component 4: Project Management and Coordination (US$ 1.5 million)**

27. This component will finance project management costs of a central Project Implementation Unit (PIU) under MARDE, as well as implementation support needs at the regional level. It will finance capacity building, financial audits, and implementation support consultants as required (such as for ESF requirements), as well as training, workshops, and costs for monitoring and evaluation, including verification of results.

28. **Component 5: Contingent emergency response (CERC) (US$ 0 million).** A provisional zero amount component is included, which will allow for rapid reallocation of loan proceeds from other Project components during an emergency, under streamlined procurement and disbursement procedures. The CERC will be established and managed in accordance with the provisions of World Bank Policy and Bank Directive on Investment Project Financing. This component allows the Government to request the World Bank to re-categorize and reallocate financing from other project components to cover emergency response and recovery costs. In all cases, the World Bank would adapt its rapid response in form and scope to the emergency's circumstances and consider the World Bank's Country Partnership Strategy for the country.

| Legal Operational Policies | Triggered? |
|---|---|
| Projects on International Waterways OP 7.50 | TBD |
| Projects in Disputed Areas OP 7.60 | No |

Summary of Screening of Environmental and Social Risks and Impacts

## CONTACT POINT

**World Bank**

Susanna Smets, Amelia Midgley
Senior Water Supply and Sanitation Specialist

### Borrower/Client/Recipient

Ministry of Agriculture Regional Development and Environment
Andros Dorin
Secretary of State
dorin.andros@madrm.gov.md

Ministry of Finance

### Implementing Agencies

Public Institution for Projects in the Environmental Field
Mihail Beregoi
Mr
mihail.beregoi@mai.gov.md

## FOR MORE INFORMATION CONTACT

The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 473-1000
Web: http://www.worldbank.org/projects

## APPROVAL

| | |
|---|---|
| Task Team Leader(s): | Susanna Smets, Amelia Midgley |

### Approved By

| | | |
|---|---|---|
| Environmental and Social Standards Advisor: | Susanna Smets | 02-Jun-2020 |
| Practice Manager/Manager: | David Michaud | 02-Jun-2020 |
| Country Director: | Alexander Kremer | 25-Jun-2020 |