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Report No: PAD5260

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED LOAN

IN THE AMOUNT OF EUR 60 MILLION  
(US\$63.6 MILLION EQUIVALENT)

TO

ROMANIA

FOR THE

ROMANIA RURAL POLLUTION PREVENTION AND REDUCTION PROJECT

March 8, 2023

Environment, Natural Resources and Blue Economy Global Practice  
Europe and Central Asia Region

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## CURRENCY EQUIVALENTS

(Exchange Rate Effective February 28, 2023)

Currency Unit = Euro (EUR)

EUR 1.00 = US\$1.06

US\$1.00 = EUR 0.94

## FISCAL YEAR

January 1 – December 31

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## ABBREVIATIONS AND ACRONYMS

AF	Additional Financing
AKIS	Agricultural Knowledge and Innovation System
AM	Accountability Mechanism
ANAR	National Administration Romanian Waters
ANSVSA	National Sanitary Veterinary and Food Safety Authority
APCP	Agricultural Pollution Control Project
BBSEA	Blueing the Black Sea
CAP	Common Agricultural Policy
CE	Citizen Engagement
CMA	Common Maritime Agenda
CPF	Country Partnership Framework
CSA	Climate-Smart Agriculture
EC	European Commission
EGD	European Green Deal
ESCP	Environmental and Social Commitment Plan
ESF	Environmental and Social Framework
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standards
EU	European Union
FM	Financial Management
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Greenhouse Gas
GoR	Government of Romania
GRM	Grievance Redress Mechanism
ICR	Implementation Completion and Results Report
ICT	Information and Communication Technology
IFR	Interim Financial Report
INPCP	Integrated Nutrient Pollution Control Project
IPF	Investment Project Financing
IPM	Integrated Pest Management
IT	Information Technology
IWRACS	Integrated Water Resources Analysis Center System
KTN	Knowledge Transfer Network
LILF	Directorate of Land Improvements and Land Fund of MARD
LIMS	Laboratory Information Management System
MARD	Ministry of Agriculture and Rural Development
M&E	Monitoring and Evaluation
MEWF	Ministry of Environment, Waters, and Forests
MFD	Maximizing Finance for Development
MOF	Ministry of Finance
MOU	Memorandum of Understanding
MTR	Midterm Review

NBR	National Bank of Romania
NFA	National Phytosanitary Authority
NGO	Nongovernmental Organization
NRRP	National Recovery and Resilience Plan
NRRP-DG	National Recovery and Resilience Plan Directorate General
NSP	National Strategic Plan
OHS	Occupational Health and Safety
PCE	Private Capital Enabling
PDO	Project Development Objective
PMU	Project Management Unit
POM	Project Operational Manual
PPP	Purchasing Power Parity
PPSD	Project Procurement Strategy for Development
RAPID	Romania Rural Pollution Prevention and Reduction
SCD	Systematic Country Diagnostic
SEA/SH	Sexual Exploitation and Abuse/Sexual Harassment
SEAP	Electronic Public Procurement System
SEP	Stakeholder Engagement Plan
SPD	Standard Procurement Document
STEP	Systematic Tracking of Exchanges in Procurement
ToC	Theory of Change
UAA	Utilized Agricultural Area
WBG	World Bank Group
WFD	Water Framework Directive

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## DATASHEET

## BASIC INFORMATION

Country(ies)	Project Name	
Romania	Romania Rural Pollution Prevention and Reduction Project (RAPID)	
Project ID	Financing Instrument	Environmental and Social Risk Classification
P179786	Investment Project Financing	Moderate

## Financing &amp; Implementation Modalities

<input type="checkbox"/> Multiphase Programmatic Approach (MPA)	<input type="checkbox"/> Contingent Emergency Response Component (CERC)
<input type="checkbox"/> Series of Projects (SOP)	<input type="checkbox"/> Fragile State(s)
<input type="checkbox"/> Performance-Based Conditions (PBCs)	<input type="checkbox"/> Small State(s)
<input type="checkbox"/> Financial Intermediaries (FI)	<input type="checkbox"/> Fragile within a non-fragile Country
<input type="checkbox"/> Project-Based Guarantee	<input type="checkbox"/> Conflict
<input type="checkbox"/> Deferred Drawdown	<input type="checkbox"/> Responding to Natural or Man-made Disaster
<input type="checkbox"/> Alternate Procurement Arrangements (APA)	<input type="checkbox"/> Hands-on Enhanced Implementation Support (HEIS)

Expected Approval Date	Expected Closing Date
30-Mar-2023	30-Jun-2028

Bank/IFC Collaboration

No

## Proposed Development Objective(s)

The Project Development Objective is to strengthen the institutional capacity of selected public entities to monitor pollution from agriculture, and to transfer knowledge on agricultural pollution reduction for adoption by participating farmers.



## Components

Component Name	Cost (US\$, millions)
Modernization of Public Institutions in Charge of Pollution Control	36.78
Knowledge-Sharing, Awareness, and Information/Innovation Transfer for Participating Farmers	21.20
Project Management	5.62

## Organizations

Borrower:	Ministry of Finance
Implementing Agency:	Ministry of Environment, Waters and Forests

## PROJECT FINANCING DATA (US\$, Millions)

### SUMMARY

Total Project Cost	63.60
Total Financing	63.60
of which IBRD/IDA	63.60
Financing Gap	0.00

### DETAILS

#### World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	63.60
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#### Expected Disbursements (in US\$, Millions)

WB Fiscal Year	2023	2024	2025	2026	2027	2028	2029
Annual	0.00	8.00	12.00	14.00	15.56	12.01	2.03
Cumulative	0.00	8.00	20.00	34.00	49.56	61.57	63.60



## INSTITUTIONAL DATA

### Practice Area (Lead)

Environment, Natural Resources & the Blue Economy

### Contributing Practice Areas

Agriculture and Food

### Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

## SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	● Moderate
2. Macroeconomic	● Moderate
3. Sector Strategies and Policies	● Moderate
4. Technical Design of Project or Program	● Moderate
5. Institutional Capacity for Implementation and Sustainability	● Moderate
6. Fiduciary	● Moderate
7. Environment and Social	● Moderate
8. Stakeholders	● Moderate
9. Other	● Moderate
10. Overall	● Moderate

## COMPLIANCE

### Policy

Does the project depart from the CPF in content or in other significant respects?

[ ] Yes    [✓] No

Does the project require any waivers of Bank policies?

[ ] Yes    [✓] No

**Environmental and Social Standards Relevance Given its Context at the Time of Appraisal**

E & S Standards	Relevance
Assessment and Management of Environmental and Social Risks and Impacts	Relevant
Stakeholder Engagement and Information Disclosure	Relevant
Labor and Working Conditions	Relevant
Resource Efficiency and Pollution Prevention and Management	Relevant
Community Health and Safety	Relevant
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Relevant
Biodiversity Conservation and Sustainable Management of Living Natural Resources	Not Currently Relevant
Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not Currently Relevant
Cultural Heritage	Not Currently Relevant
Financial Intermediaries	Not Currently Relevant

**NOTE:** For further information regarding the World Bank's due diligence assessment of the Project's potential environmental and social risks and impacts, please refer to the Project's Appraisal Environmental and Social Review Summary (ESRS).

**Legal Covenants**

## Sections and Description

Loan Agreement, Schedule 2, Section I, Part A.2. Not later than sixty (60) days after the Effective Date, the Borrower, through MEWF, shall recruit an environment specialist, a social specialist, and a monitoring and evaluation specialist, all with terms of reference satisfactory to the Bank as further described in the Project Operational Manual.

## Sections and Description

Loan Agreement, Schedule 2, Section I, Part A.3. Not later than thirty (30) days after the Effective Date, the Borrower, through MEWF, shall enter into a memorandum of understanding with MARD, NFA, and ANAR, setting forth the roles and responsibilities of MEWF and the relevant entity and the designated staff (focal point) of each entity under the Project, all in accordance with terms and conditions acceptable to the Bank.

**Sections and Description**

Loan Agreement, Schedule 2, Section I, Part A.1. An adequately staffed PMU should be maintained at all times throughout project implementation.

**Sections and Description**

Loan Agreement, Schedule 2, Section II, Part 2.a. Not later than 30 months after the Effective Date (or such other date as the Bank may agree), carry out a mid-term review of the Project and, prepare and furnish to the Bank a mid-term report in such detail as the Bank shall reasonably request.

**Sections and Description**

Loan Agreement, Schedule 2, Section I, Part D.5. Not later than thirty (30) days after the Effective Date, the Borrower, through MEWF, shall establish and publicize, and thereafter maintain and operate, an accessible grievance mechanism, to receive and facilitate resolution of concerns and grievances of Project-affected people, and take all measures necessary and appropriate to resolve, or facilitate the resolution of, such concerns and grievances, in a manner acceptable to the Bank.

**Conditions**

Type	Financing source	Description
Effectiveness	IBRD/IDA	Loan Agreement, Article IV. The Borrower has adopted the Project Operational Manual in a manner satisfactory to the Bank.
Disbursement	IBRD/IDA	Loan Agreement, Schedule 2, Section IV, Part B.1.b. Under Category (2) (Sub-grants): unless and until the Borrower has adopted the Grants Manual in form and substance acceptable to the Bank.



## I. STRATEGIC CONTEXT

### A. Country Context

1. **Romania continues to have a strong growth trajectory, among the highest in the European Union (EU), resulting in robust standard of living.** Romania is the sixth most populous country in the EU, with a population of 19.1 million,<sup>1</sup> and the eighth largest, with a surface area of 238,000 km<sup>2</sup>. Romania's EU membership has triggered a positive socioeconomic transformation. With economic growth averaging 3.7 percent over the last two decades, living standards<sup>2</sup> more than doubled from US\$12,179 in 2000 to US\$30,777 in 2021. Romania's income per capita (PPP) increased from 26.4 percent of the EU average in 2000 to 74.2 percent in 2021.
2. **This growth has also been one of the most volatile in the EU, and hence not sustainable, being also affected by regional and global shocks.** The economy bounced back from the COVID-19 pandemic-induced shock, but Russia's invasion of Ukraine and rising inflation have jeopardized the recovery. Romania continues to be on an unsustainable path, struggling with demographic challenges due to an aging population and significant outmigration and where growth has increasingly been driven by consumption, with widening macroeconomic imbalances.
3. **While economic growth has translated into poverty reduction, Romania still has the highest poverty rate in the EU.** EU membership has helped reduce the rate of poverty for Romania but growth is not inclusive as a large share of Romanians in the bottom 40 percent of income distribution continues to overwhelmingly concentrate on low-productivity subsistence agriculture. Between 2014 and 2019, the share of Romanians living on less than US\$6.85 per day (2017 PPP) declined rapidly from 30 percent to 11.3 percent on the back of strong national- and EU-level labor markets. However, not all Romanians in the bottom 40 percent of the income distribution have been able to benefit from the strong economic growth. Romania's inclusion challenge is predominantly a rural problem, with 70 percent of the total poor living in rural areas, with women, Roma, and the elderly overrepresented among the poorest.<sup>3</sup> The gender employment gap in rural areas stood at 25.2 percentage points,<sup>4</sup> more than twice as large as in Romanian cities and nearly double the EU-27 average (13 percent) in rural areas. Access to basic services such as piped water, sanitation, internet, and electricity is still scarce in rural Romania. The COVID-19 crisis and the geopolitical tensions brought up by Russia's invasion of Ukraine have further disproportionately affected the poor and the most vulnerable and also brought long-term effects on Romania's human capital.
4. **The economy is projected to expand in 2022 and 2023, with the pace of growth moderated by Russia's invasion of Ukraine and with risks tilted to the downside.** Romania's short-term growth prospects have been eroded by Russia's invasion of Ukraine and remain sensitive to new COVID-19 strains, contributing to higher inflation (16.8 percent in November 2022), uncertainty, and further disruptions to supply chains. The National Bank of Romania (NBR) gradually increased the monetary policy rate to 7

<sup>1</sup> Eurostat, The 2021 EU Aging Report.

<sup>2</sup> Gross domestic product [GDP] per capita in purchasing power parity [PPP] constant 2017 international US\$.

<sup>3</sup> World Bank. 2018. "Country Partnership Framework for Romania for the Period 2019–2023."

<sup>4</sup> Eurostat. 2021. "Gender Employment Gap by Residency."



percent in January 2023, and the rising interest rate environment could further limit growth. While Romania benefits from EU resources under the Resilience and Recovery Facility (set up in response to the COVID-19 pandemic), Romania's capacity to absorb EU funds remains critical to a sustainable recovery process.<sup>5</sup> The sizable funds should also alleviate some of the fiscal pressures resulting from Russia's invasion of Ukraine and heightened energy and food prices.

**5. Governance, institutional, and policy constraints hinder social inclusion and poverty reduction and remain key bottlenecks for Romania.** The political and legislative volatility, together with an incomplete institutional modernization, has limited Romania's ability to boost economic growth, implement key policies, and strengthen equality across the nation while also generating an uncertain and unpredictable environment which hinders provision of public services and private sector development and investment. Insufficient administrative capacity of public institutions and weak cross-sectoral and cross-institutional collaboration and coordination result in limited strategic planning capacity, less than adequate policy making and reform implementation, and low absorption and use of EU funds.

**6. Romania's vulnerability to natural hazards and impacts of climate change remains high, necessitating a focus on adaptation and building resilience.** As articulated in the World Bank Romania Systematic Country Diagnostic (SCD, P500075) Update, the country is at risk from a range of hazards, including natural disasters such as earthquakes, floods, and droughts/extreme heat events, as well as epidemics/pandemics and technological accidents.<sup>6</sup> The frequency and severity of these hazards are being exacerbated by climate change, especially as it relates to precipitation and its inevitable impact on droughts and floods. Current land use practices are reducing the capacity to retain and manage water with the resultant increase in threats of flooding to both rural and urban populations. Romania is also highly vulnerable to extreme heat impacts and wildfires and has a medium risk of water scarcity, which will particularly affect agriculture. With these increased threats, the potential damage to natural, physical, and human assets can curtail economic growth, jeopardize fiscal sustainability, and negatively affect the well-being of the population.

**7. Romania's agriculture sector is a significant contributor to overall greenhouse gas (GHG) emissions and particularly vulnerable to the effects of climate change.** Although Romania is one of the best endowed European countries in terms of its resources, its fragmented landholdings, inadequate agricultural extension services, lack of modern and efficient irrigation/drainage systems that could reduce dependency on rain-fed production, and poorly developed information and communication technology (ICT) systems to share knowledge and information with farmers constrain the development of the agriculture sector. Particularly, Romania's high share of smallholders (more than 93 percent of the farming population) lacks the financial and technical capacity to access these services through traditional market channels. Smallholder farmers are particularly vulnerable to the impacts of adverse climatic events due to their inability to access or apply risk management instruments. A complex and holistic approach to climate change adaptation and mitigation in the agriculture sector needs to be developed. Promoting climate-smart agriculture (CSA) practices in Romania is important to identify the potential for the

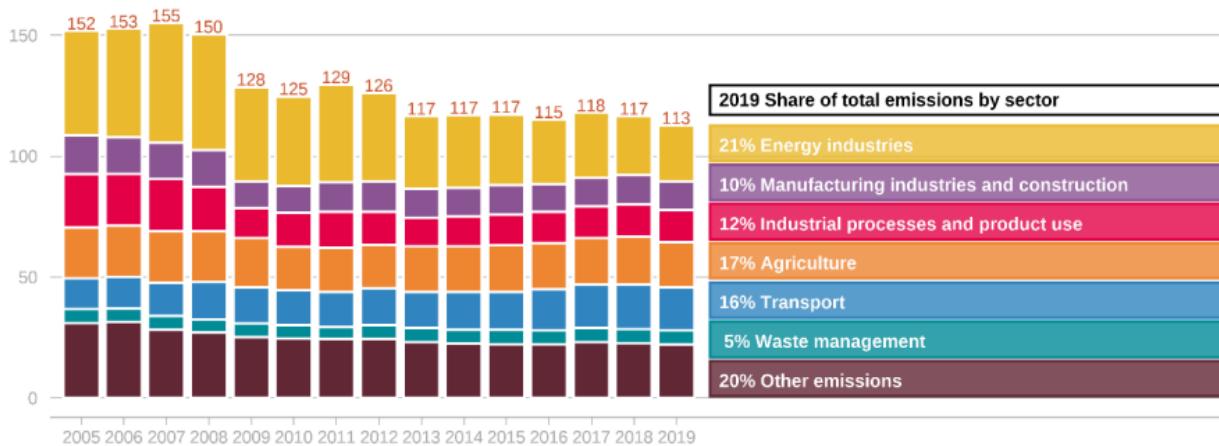
<sup>5</sup> Under the Resilience and Recovery Facility and as defined in the Romania's National Recovery and Resilience Plan (NRRP), the country has access to grant (EUR 14 billion) and loan (EUR 15 billion) support, available to be absorbed by 2026. The resources are available to finance reforms and investments to support the recovery from the pandemic.

<sup>6</sup> While earthquakes are not linked to climate change, they are currently among the key hazards in Romania and an efficient risk management policy cannot be designed without considering this hazard.



agriculture sector to deliver on climate change adaptation and mitigation, given that it is the second largest source of GHG emissions in Romania. The agricultural sector emissions fell by 11 percent over the 2005–2019 period, while the sector's share of total emissions rose by 3 percentage points (see figure 1). Of the Romanian agricultural emissions (17.4 percent of total GHG emissions), half are sourced from nitrous oxide ( $N_2O$ ) which is driven by soil nitrification and subpar manure management. About 45 percent of agricultural emissions are derived from enteric fermentation of ruminants in the form of methane ( $CH_4$ ) and the remaining 5 percent from carbon dioxide ( $CO_2$ ).<sup>7</sup>

**Figure 1. Total GHG Emissions by Sector (MtCO<sub>2</sub>e) (rounded data)**



Source: European Economic Area (EEA) (GHG trends, GHG estimates, United Nations Framework Convention on Climate Change [UNFCCC] reporting).

8. **The European Green Deal (EGD)<sup>8</sup> has advanced an EU-wide ambition for climate mitigation and adaptation actions, highlighting the need for an equitable transition.** The EGD aims at transforming the EU into a modern, resource-efficient, and competitive economy and provides an action plan for Member States to boost the efficient use of resources by moving to a clean, circular economy that helps in restoring biodiversity and reducing pollution. The EU Member States, including Romania, are legally required to achieve carbon neutrality by 2050 and are committed to reducing carbon emissions by 55 percent compared to 1990 levels by 2030 (which requires a 30 percent decrease from current levels). The EU previously met its 2020 target to reduce emissions by 20 percent relative to the 1990 baseline, although performance across countries varied. Meeting the 2030 and 2050 targets will involve significant efforts for Romania. Countries' ability to deploy supportive actions to enable the green transition will determine the future competitiveness of national economies in Europe, including Romania.

9. **Stronger rules to ensure healthier and more sustainable food systems by 2030 are also being prepared at the EU level, in line with the EGD and the EU 'Farm to Fork' Strategy.** Chemical pesticides contaminate the air, water, and the wider environment; harm human health; and cause a decline in

<sup>7</sup> European Environmental Agency. 2020. "Agricultural Greenhouse Gas Emission Statistics."

<sup>8</sup> The EGD is a package of policy initiatives, which aims to set the EU on the path to a green transition, with the ultimate goal of reaching climate neutrality by 2050. It supports the transformation of the EU into a fair and prosperous society with a modern and competitive economy.



biodiversity in agricultural areas. In June 2022, the European Commission (EC) proposed clear and binding rules through a flagship legislative proposal to reduce the use and risk of chemical pesticides by 50 percent by 2030<sup>9</sup> and the use of the more hazardous pesticides. The proposal transforms the existing Sustainable Use Directive 2009/128/EC into a regulation which will be directly applicable to all Member States. The new rules on chemical pesticides aim to reduce the environmental footprint of the EU's food system, protect the health and well-being of citizens and agricultural workers, and help mitigate the economic losses that are already incurring due to declining soil health and pesticide-induced pollinator loss. Member States, including Romania, will set their own national reduction targets within defined parameters to ensure that EU wide targets are achieved. The new measures would ensure that all farmers practice integrated pest management (IPM), which considers alternative environmentally sensitive approach and biological control to pest prevention. The measures also include mandatory monitoring for farmers and other professional users. In addition, Romania's Integrated National Energy and Climate Change Plan 2021–2030 emphasizes adaptation in agriculture, improvement in water management, energy efficiency, and building of overall resilience in agriculture and rural development.

## B. Sectoral and Institutional Context

### Sectoral Context

10. **Since EU accession, Romania's environment has improved; however, groundwater pollution in rural areas remains an issue.** During the last 15 years, Romania has taken a more aggressive stance toward environmental protection, driven mainly by applying the EU legislation. For example, Romania registered improvements toward the defined environmental standards stipulated in the EU Water Framework Directive (WFD) and especially in addressing the EU Nitrates Directive<sup>10</sup> that aims at protecting the quality of groundwater and surface water against pollution from agricultural sources. Most surface water bodies are in good or moderate ecological status and only 2 percent of surface water are in poor chemical status.<sup>11</sup> In contrast, while groundwater bodies showcase abundant quantities, 10.5 percent of groundwater bodies still fail to achieve good chemical status.<sup>12</sup> Still, 13 percent of groundwater monitoring points exceed the threshold of 50 mg/L and 41 percent of surface water monitoring points were found to be eutrophic.

11. **Romania's actions on reducing nutrient pollutants have been recognized, with the World Bank playing a key role.** The EC commends Romania's progress on reducing nitrate discharges, as nutrient pollution levels during the assessment period 2016–2019 reveal a decline compared with 2012–2015

<sup>9</sup> Together with the Biodiversity Strategy, the Farm to Fork Strategy defines a set of reduction targets partially foreseen to be achieved by 2030: (a) reduction of nutrient losses by 50 percent, (b) reduction of fertilizer use by 20 percent, (c) reduction of chemical pesticide use and risk by 50 percent, (d) reduction of sales of antimicrobials by 50 percent, (e) increase of organic farming area to 25 percent of the utilized agricultural area (UAA), and (f) increase of high-diversity landscape features to 10 percent of the UAA.

<sup>10</sup> [https://environment.ec.europa.eu/topics/water/nitrates\\_en](https://environment.ec.europa.eu/topics/water/nitrates_en).

<sup>11</sup> European Commission: Commission recommendations for Romania's CAP strategic plan, SWD (2020) 391 final, 18.12.2020.

<sup>12</sup> The chemical status refers to Pb, Cd, Ni, Cr, Cu, and Zn.



levels.<sup>13</sup> This positive development is based on two decades of World Bank support as follows: (a) before EU accession (2002–2007), the World Bank-financed Agricultural Pollution Control Project (APCP, P066065) piloted and promoted the adoption of environment-friendly agricultural practices while supporting ecologically sustainable land use in regional-focused areas of Romania and (b) since 2008, the World Bank-financed Global Environment Facility (GEF) Romania Integrated Nutrient Pollution Control Project (INPCP, P093775) remains the support vehicle for advancing the implementation of the EU Nitrates Directive.

**12. Despite the efforts to reduce pollution, agriculture remains a main source for environmental pollution in rural areas.** Pollutants from agricultural sources that are affecting environmental health and socioeconomic benefits of the rural population in Romania include the following:

- **Nutrient pollutants (nitrates and phosphorus) are a threat to the environment.** While Romanian farmers rely on organic fertilizers, of which 90 percent are sourced at farm level, they are not properly collected, stored, applied, or disposed of. Improper management of organic fertilizers leads to runoff of nitrates and phosphorus in river ways and/or contaminates groundwater. Some parts of Romania are still facing significant levels of groundwater nitrates.
- **Air quality is affected by the ammonia emissions.** Ammonia is an important contributor to nitrogen fluxes, also affecting water quality and biodiversity. While the total levels of ammonia emissions contributing to air quality in Romania have remained stable since 2010, the EU-27 average showcases a downward trend. Romania is at a high risk of non-compliance with the Gothenburg Protocol and the National Emission Reduction Commitments Directive.<sup>14</sup> Of the total reported ammonia emissions in Romania, 89 percent are from the agriculture sector.<sup>15</sup> Currently, there is no investment program, training, or awareness campaign for farmers on this agricultural pollutant.
- **Various additional agriculture-based pollutants persist.** Antibiotics used in the Romanian livestock sector are another source of water pollution from the agricultural sector. While sales of antimicrobials have slightly decreased, the environmental exposure of these active pharmaceutical ingredients in Romanian rivers is among the highest in Europe.<sup>16</sup> Pesticide sales have remained stable during the last decade, but the weak control on the implementation of the IPM contributes to pollution in the rural areas.

**13. Pollution from unsustainable agricultural practices has several roots.** The type and significance of pollution from agricultural sources are closely connected to the management of soils, livestock

<sup>13</sup> In the report by the EC from October 2021, Romania is positively stated among those Member States that have developed action programs with measures reducing and preventing nitrate pollution, applying the measures to the whole territory. European Commission: Report from the Commission to the Council and the European Parliament on the Implementation of Council Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agricultural sources based on Member State reports for the period 2016–2019, COM (2021) 1000 final, October 11, 2021.

<sup>14</sup> The National Reduction Commitment Directive defines reductions targets for Romanian ammonia of –13 percent by 2020 and –25 percent by 2030.

<sup>15</sup> European Commission: Commission recommendations for Romania's CAP strategic plan, SWD(2020) 391 final, 18.12.2020.

<sup>16</sup> Wilkinson, Boxall, Kolpin, et al. 2021. "Pharmaceutical Pollution of the World's Rivers." *Proceedings of the National Academy of Sciences of the United States of America* 119 (8): e2113947119.



numbers, and farming practices with regard to biomass. The dichotomous farm structure remains a distinct trait of Romanian agriculture where over 90 percent of 3.4 million farms manage less than 2 ha and generate incomes of less than EUR 4,000 per year.<sup>17</sup> On the other end, just 0.4 percent (12,310 farms) are large commercial enterprises with an acreage of over 100 ha and incomes beyond EUR 50,000. While large farms remain important polluters due to, sometimes, inefficient practices, Romania has by far the EU's largest share of subsistence and semi-subsistence farms producing mainly for their own consumption. Low income prevents access to finance and the disconnection from agricultural extension services prevents smallholders' access to information on sustainable farming practices. In addition, falling out of scope of public support and the lack of market integration affect the possibility of subsistence farmers to adhere to environmental regulations.

**14. Agriculture benefits from significant financial inflows under the EU Common Agricultural Policy (CAP); however, leveraging environmental sustainability falls short.** EU accession opened tremendous financial opportunities for the agriculture sector in Romania. In 2020, Romanian farmers received more than EUR 3.1 billion of EU support under the CAP. More than 61 percent of agriculture expenditure is granted in the form of direct payments, which primarily follow income objectives.<sup>18</sup> While 30 percent of direct payments include a 'greening' conditionality, just 795,000 farmers (of 3.4 million) were granted direct payments in 2020.<sup>19</sup> Going forward, Romania expects to receive approximately EUR 14.9 billion of EU support under the CAP for 2023–2027<sup>20</sup>. However, due to size-related eligibility criteria, most Romanian smallholder farmers fall beyond the scope of EU support. In the case of agri-environmental and climatic measure of the National Rural Development Program 2014–2020, just 65,000 farmers committed to sustainable practices.<sup>21</sup> Nonetheless, as only 7.73 percent (1.13 million ha) of the total Utilized Agricultural Area (UAA) is under the commitment of the agri-environmental and climatic measures<sup>22</sup> within the EU CAP, the possibility to widely apply good farming practices that foster environmental stewardship needs strengthening.

### Institutional Context

**15. Most Romanian farmers lack awareness on environmental impacts and knowledge of pollution prevention.** Subsistence and semi-subsistence farms suffer from a lack of a clearly defined professional status with limited knowledge of environmental standards and implications thereof. The abolishment of the agriculture-specialized secondary schools in 1995 resulted in poor education level for those who operate Romanian farmland. With the dissolution of the National Agency for Agricultural Consultancy and incomplete transition toward agricultural chambers (2010 to date), Romanian farmers are also missing training opportunities on technological transfer and state-of-the-art environmental practices. While some training is conducted at regional centers, Romanian farmers lack the effective delivery of advisory services that would teach them good farming practices and environmental stewardship, inform them on market opportunities, and raise awareness on environmental threats. Furthermore, Romanian consumers lack

<sup>17</sup> Eurostat: Farm Structure Survey 2016.

<sup>18</sup> European Commission. 2021. "EU Agriculture Factsheet for Romania."

<sup>19</sup> Eligibility criteria include minimum farm size of 1 ha and plot size of 0.3 ha.

<sup>20</sup> European Commission, At a Glance: Romania's CAP Strategic Plan. [https://agriculture.ec.europa.eu/system/files/2022-12/csp-at-a-glance-romania\\_en.pdf](https://agriculture.ec.europa.eu/system/files/2022-12/csp-at-a-glance-romania_en.pdf)

<sup>21</sup> Agency for Payments and Interventions Agriculture, 2020.

<sup>22</sup> Ministry of Agriculture and Rural Development, 2022.



awareness<sup>23</sup> on agri-food products that are healthy and stem from farming practices that preserve the environment. Based on the experience of the INPCP, awareness raising is also needed for larger farms, as their efficiency in using the chemical inputs is considered low.

**16. Institutional deficiencies hamper environmental protection.** The Ministry of Environment, Waters, and Forests (MEWF) holds the mandate for managing and delivering the complex and diverse legislation under European environmental policy, covering key responsibilities of sustainable development, environmental impact assessment, nature protection and biodiversity, waste management, pollution control (water and soil), and climate action. As the umbrella organization dealing with pollution control, MEWF works with subordinated agencies and has interfaces with the Ministry of Agriculture and Rural Development (MARD) on agricultural pollution. The technologies under MEWF and its authorities are outdated, affecting their monitoring and reporting capacity and weakening their national and EU reporting obligations. The agriculture sector lacks adequate agriculture extension services and farms that showcase adequate waste management and prevention and mitigating techniques for pollution from agricultural sources. The process of compliance with EU legislation reveals that the environmental administration in Romania still faces constraints and is insufficiently digitalized for an effective implementation of legal provisions and service delivery. The following institutions stand out with specific needs for strengthening their monitoring, evaluation, and reporting capacity:

- **The National Administration Romanian Waters (ANAR) authority, in coordination of the MEWF,** manages surface water and groundwater resources of the public domain of the state. In its role of quality monitoring, ANAR faces challenges on reliability, traceability, and integration in compliance with EU directives. The water administration lacks optimal monitoring equipment, performance assessment tools in laboratories, and information technology (IT) solutions to improve reporting of quality and quantity data on surface water and groundwater water resources in Romania. As of 2022, some of the existing equipment can no longer be used or has a high degree of wear and tear, resulting in laboratories that no longer have the capacity to fulfill their obligations regarding the analysis of quality indicators for surface water and groundwater resource. Strengthening ANAR's institutional capacity is important to meet quality monitoring requirements under the WFD 2000/60/EC, Directive 2006/118/EC on the protection of groundwater against pollution and deterioration, and Directive 676/91/EEC on the protection of water quality against pollution caused by nitrates from agricultural sources (EU Nitrates Directive).
- **The National Phytosanitary Authority (NFA) subordinated to MARD** organizes, coordinates, and controls the movement and application of pesticides. In its efforts to comply with stringent EU regulations, NFA requires its institutional capacity to be strengthened to organize and coordinate the surveillance of plant protection products and monitor certain quarantined pests. In addition, with the standards of EU legislation (Farm to Fork Strategy) on the use and traceability of pesticides becoming more stringent, NFA needs investments to improve its surveillance and alert system. A recent study<sup>24</sup> on the analysis of agri-food legal framework and recommendations developed by the World Bank for MARD also

<sup>23</sup> According to the Specific Objective 9 of the CAP on ensuring “high-quality, safe and nutritious food produced in a sustainable way.”

<sup>24</sup> World Bank. 2022. Output No. 2: Study on the Analysis of Agri-food Legal Framework and Recommendations, as part of the Reimbursable Advisory Services Agreement on Romania Traceability in the Agri-food Sector, October 2022.



highlighted that capacity building in risk analysis and data interpretation within the relevant competent authorities (such as for plant health) are needed. The laboratories of NFA must ensure a high level of performance in the detection and official confirmation of plant pests by using appropriate equipment that can determine the parameters required by the methods in the working protocols to be implemented by the national reference and official laboratories. The efficiency (speed) and safety in the application of phytosanitary measures are critical to mitigate the risk of introducing and spreading quarantine organisms harmful to plants and plant products, the risk of using non-compliant plant protection products, and the risk of consuming food with residues of pesticides above the maximum permitted limits.

- **The National Recovery and Resilience Plan Directorate General (NRRP-DG) of MEWF** is a new unit dedicated to the implementation of the environmental protection components of the NRRP. This new department within MEWF will have limited time (end of 2026) to absorb EUR 3.8 billion of investments for environment-related protection, including EUR 255 million to develop 254 integrated systems for the collection of compostable agricultural waste (including manure platforms) at the communal or farm level, with focus on collection, prevention, reduction, reuse, and recovery in compliance with EU directives and transition to the circular economy. Romania's implementation of these integrated systems and manure platforms through NRRP funds would be scaling up the INPCP success story, through which 166 similar investments comprising manure storage and management facilities have been implemented over the course of 15 years (see Annex 3). The NRRP-DG lacks specific administrative capacity for the NRRP (such as technical assistance, consultancy services, and goods for monitoring and reporting).
- **The Directorate of Land Improvements and Land Fund of MARD (LILF)** is a new unit within the agricultural administration that has recently embarked on a path of protecting soils and strengthening its climate change mitigation and adaptation obligations in the agriculture sector. LILF has the responsibility to collect data on agricultural inputs (such as pesticides, fertilizers, and antibiotics) that are required to strengthen productivity but can also lead to environmental pollution in case of excessive and improper application. This collected data will have to be analyzed and is subject to comprehensive and frequent reporting obligation in compliance with EU and international commitments. LILF lacks human capital and integrated IT applications and is yet to acquire competences in establishing its collecting, monitoring, and reporting capacity as well as skills that enable enhanced oversight.

17. **The subpar institutional capacity of environmental service delivery dampens the effectiveness of environmental policies.** The national, regional, and local administrations play a critical role in ensuring environmental compliance, promoting suitable technical solutions, and supporting cost-effective decision-making. With growing environmental awareness, weakness in institutional capacity comes to the fore. The lack of state-of-the-art monitoring instruments reveals operational deficiencies and digitalization are still not sufficiently developed in the public administration. For example, ANAR needs advanced monitoring equipment and an integrated database to replace the inefficient fragmented databases of the 11 river basin management offices, improving the monitoring of the quality of surface water and groundwater bodies, providing an early warning system in case of rising pollution, and thus improving decision-making at the management level.



18. The proposed project will support institutional strengthening and capacity building to address the constraints and gaps identified above for MEWF, MARD, and their subordinated entities (NRRP-DG, ANAR, NFA, and LILF) with a focus on monitoring pollution from agriculture and will also aim to raise awareness on environmental impacts and transfer knowledge of pollution prevention and reduction to farmers.

### C. Relevance to Higher Level Objectives

19. **The proposed project will contribute to meeting the objectives of the World Bank Country Partnership Framework (CPF) for the period FY19–FY23 (Report No. 126154-RO, discussed by the Board of Executive Directors on June 19, 2018) and its Performance and Learning Review (Report No. 160350-RO, discussed by the Board of Executive Directors on July 29, 2021).** The project will contribute to the overarching goal of the CPF: improving public service delivery by strengthening the national and local institutional capacity for monitoring rural pollution, IPM, and sustainable use of pesticides. The CPF focuses on building better public institutions through three focus areas and the project will contribute to two of them: it will contribute to the first focus area ‘Ensure Equal Opportunities for All’, by improving knowledge transfer and promoting innovations for preventing and reducing rural pollution that would be of particular importance for the poor and vulnerable, and it will contribute to the third focus area ‘Build Resilience to Shocks’, through its focus on targeting investments on knowledge transfer and advisory services that will support farmers in improving their good farming practices, contributing to both mitigation and adaptation.

20. **The proposed project fully meets the selectivity filters introduced in the CPF, which allow the World Bank Group (WBG) operations to support investment, advisory, or knowledge operations in Romania that help build institutions and markets for sustainable and broad-based growth and share global knowledge (see table 1).** Investments in monitoring and preventing rural pollution, strengthening climate resilience in agriculture, and integrating adaptation considerations will contribute to regional and global public goods. In addition, convergence with the EU is specifically targeted in the CPF by strengthening targeted national institutional capacities. The project will contribute toward meeting the EU WFD, the EU Nitrates Directive requirements, and the EU Farm to Fork Strategy under the EGD.

**Table 1. Project’s Contribution to CPF Selectivity Filters**

CPF Filter	Project Contribution
Strengthening institutions	The project targets key environment and agricultural institutions (MEWF, MARD, ANAR, and NFA) to generate capacities and strengthen coordination arrangements, processes, systems, and resilience in benefit of individuals, businesses, and environment sector institutions alike. The investments will support capacity building, equipment, and improved sectoral information systems, strengthening key institutions. The CPF recognizes that creating a business environment conducive to sustained growth requires strengthening of Romania’s public institutions for improved service delivery.
Developing innovative solutions that benefit the poorest and most vulnerable, including Roma	The project will aim to strengthen knowledge transfer and promote innovations for preventing and reducing rural pollution that would be of particular importance to increase the resilience of the poor and vulnerable (women, Roma, and so on). Targeted awareness campaigns and trainings will further support vulnerable groups. Promoting inclusion and bridging the



CPF Filter	Project Contribution
	social and economic divide of Romania is also an objective of the CPF, which is of paramount importance for the polarized farm structure.
Maximizing finance for development (MFD), including catalyzing private sector investment or leveraging additional resources	The proposed project is private capital enabling (PCE) under the MFD framework as it crowds in private co-financing (private farmers will provide a 10 percent co-financing for grants awarded under Subcomponent 2.1 for modernizing role model farms).
Contributing to regional and global public goods	The project is contributing to a stronger regional and global public goods delivery by helping monitor and prevent rural pollution, strengthening climate resilience in agriculture, and integrating adaptation considerations. Institutional strengthening to monitor and control pollution from agriculture to improve quality and efficiency of agriculture pollution reduction and prevention in Romania and knowledge generation/transfers and dissemination are public goods that will lead to environmental benefits.

**21. The proposed project builds on the WBG Green Resilient and Inclusive Development and is PCE.** In addition to the Paris Agreement, Romania's green transition agenda is anchored in the EGD, the EU's joint Nationally Determined Contributions, and the Integrated National Energy and Climate Change Plan 2021–2030. The proposed project is PCE under the MFD framework as it crowds in private co-financing (private farmers will provide a 10 percent co-financing for grants awarded under Subcomponent 2.1 for modernizing role model farms).

**22. The proposed project is aligned with the Global Crisis Response Framework Paper (GCRF) which outlines the WBG response to the ongoing crisis to support medium- to long-term development needs.** Russia's invasion of Ukraine has led to supply disruptions and further upward pressure on commodity prices—notably food, fuel, and fertilizer—as well as massive physical destruction and displacement of people. With the continued impacts of climate change, droughts, regional conflicts, and displacement of people, which already have a negative effect on food and nutrition security, many countries find themselves in urgent need of financial and technical support. Romania's vulnerability to spillovers from Russia's invasion of Ukraine is largely indirect, including through lower growth in Europe and higher energy and food prices. Moreover, the short-term impact of the higher prices will be compounded by the long-term effect of higher fertilizer prices that could have a negative effect on domestic food production. By focusing on more efficient use of fertilizers and CSA practices, through the demonstration farms and knowledge transfer networks (KTNs) (Subcomponent 2.1 and Subcomponent 2.2, respectively), the project aligns with Pillar 1: Responding to Food Insecurity and Pillar 3: Strengthening Resilience (sustainable food systems) of the GCRF paper. In addition, through Subcomponents 1.1 and 1.2, the project also contributes to Pillar 4: Strengthening Policies, Institutions, and Investments for Rebuilding Better (through the targeted institutional strengthening and capacity-building activities).

**23. The proposed project is also fully consistent with the WBG Climate Change Action Plan 2021–2025,** which supports transformational integrated landscape management, pollution reduction, and CSA across the entire agriculture and food value chains through technological interventions and sustainable land management.



## II. PROJECT DESCRIPTION

### A. Project Development Objective

#### PDO Statement

24. The Project Development Objective is to strengthen the institutional capacity of selected public entities to monitor pollution from agriculture, and to transfer knowledge on agricultural pollution reduction for adoption by participating farmers.

*Note: Public entities are national or regional agencies or authorities or departments within a line ministry.*

#### PDO Level Indicators

25. Achievement of the PDO will be measured against the following outcome level indicators:

- Outcome Indicator 1: Reporting by public entities meeting defined criteria (percentage), as demonstrated by issuance of the following publications:
  - Reports by MEWF meeting defined criteria
  - Reports produced by ANAR meeting defined criteria
  - Reports produced by NFA meeting defined criteria
  - Reports produced by LILF meeting defined criteria
- Outcome Indicator 2: Participating farmers adopting agricultural pollution reduction practices as a result of the project (male/female disaggregated) (Percentage)

### B. Project Components

26. The proposed project is expected to be part of a programmatic sustainable development engagement supporting the agriculture-environment-water agendas in strengthening institutional capacities in Romania. The proposed project is a follow-on operation of the INPCP which has been Romania's main support vehicle for the implementation of the EU Nitrates Directive (see Annex 3). By strengthening the institutional capacity to monitor pollution from agriculture and transferring knowledge on agricultural pollution reduction to farmers, this follow-on operation ultimately strengthens Romania's capacity for implementing its EGD and EU Farm to Fork Strategy commitments while also leveraging important EU financial resources. Consequently, the proposed project will provide the foundation for longer-term engagement and collaboration in the transformation of Romania's environment, agriculture, and water sectors. The project is prepared in close coordination with ongoing agriculture and water dialogue in the country.

27. Consultations with Romanian stakeholders have shaped the proposed activities. A series of 16 structured interviews were carried out during fall 2021 and early 2022 with key departments and subordinated agencies from MEWF and MARD as well as relevant research institutes, farmer associations, and nongovernmental organizations (NGOs). The overall objective of the survey questionnaire was to identify the needs for further action in preventing and reducing water and air pollutants from agricultural sources. The questions were formulated around a set of hypotheses dealing with the current



environmental challenges at the farm level and institutional needs based on future EU policies and international agreements.

28. **The proposed project will benefit the whole territory of Romania** and will include the following three interlinked components: (1) Modernization of Public Institutions in Charge of Pollution Control; (2) Knowledge-Sharing, Awareness, and Information/Innovation Transfer for Participating Farmers; and (3) Project Management.

**Component 1: Modernization of Public Institutions in Charge of Pollution Control (EUR 34.7 million)**

29. This component will focus on institutional strengthening and capacity building of MEWF, MARD, and their subordinated entities ANAR and NFA. Going beyond the support provided to tackle nutrient pollution in the INPCP, investments such as equipment, technologies, and software will be facilitated to address other agricultural pollutants, including support for the administrative capacity of MEWF and MARD, ultimately contributing to climate resilience. Good governance at national and regional levels is important for enhancing climate resilience while reducing emissions through pollution reduction and prevention.

***Subcomponent 1.1: Strengthening the institutional capacity of MEWF (EUR 8 million; includes consultancy services, non-consulting services, and goods)***

30. This subcomponent will address the current identified administrative gaps and strengthen the institutional capacity of MEWF to monitor, evaluate, and report on investments, including on the NRRP's environment-related components (which will contribute to climate resilience and reducing emissions), by providing technical assistance, consultancy services, and goods to the NRRP-DG. These services include internal audit services, technical assistance support for strengthening MEWF administrative capacity for monitoring and reporting NRRP investments, technical assistance for the development of software applications and licenses for NRRP (including development of software for monitoring and evaluation [M&E] and reporting applications and interface software for enhancing integration and communication with governmental structures for NRRP), office equipment to support the monitoring and reporting capacity, vehicles for MEWF's administrative capacity, other capacity-building activities, including participating in trainings and organizing and attending conferences and knowledge exchange meetings.

***Subcomponent 1.2: Enhancing the national capacity for monitoring, prevention and reduction of pollution from agricultural sources in rural areas (EUR 26.7 million; includes consultancy services, non-consulting services, goods, equipment, and training)***

31. In alignment with the targets defined in the EU Farm to Fork Strategy and going beyond the investments on nutrient pollution in the INPCP, the subcomponent will support<sup>25</sup> the following (see Annex 2):

- **Strengthening the institutional capacity of ANAR** (authority in coordination of the MEWF) to monitor the quality of surface and groundwater bodies including through: (a) purchase of monitoring equipment and integrated database with hardware and software (including

<sup>25</sup> Project costs for equipment have been determined and updated based on recent market research conducted by MEWF, ANAR, and NFA.



servers); (b) development of an early-warning-system in case of rising pollution; (c) development of a software to support Romania's reporting obligations under the relevant legal framework, including on nitrates; (d) purchase of equipment for sampling and testing pesticides, antimicrobials, heavy metals, and other pollutants, monitoring of water quality, determining biological indicators relevant to eutrophication, monitoring of nutrients in surface and groundwater resources; (e) training of relevant ANAR's personnel responsible for the analysis of water quality; (f) training of laboratory personnel; (g) development of an IT tool for modeling the pollutant emissions from agricultural activities; (h) development of integrated information management systems; and (i) revising the Code of Good Agricultural Practices and its action program<sup>26</sup>, as well the preparation of guidelines<sup>27</sup> addressing the reduction of pollutants and emissions from agricultural sources.

- **Strengthening the institutional capacity of NFA** (subordinated agency of MARD) through targeted investments including through (a) technical assistance and the purchase of equipment for the development of a national network to improve surveillance and alert system (collection of weather data for early warning systems of climate events) on plant diseases and pests, for IPM and sustainable use of pesticides, and for procurement of an accompanying software solution that will lead to a system of automatic data processing for surveillance/prognosis, real-time alert, and recommendations on the use of pesticides; (b) purchase of mobile laboratories for inspection and calibration of pesticides' field application equipment, to reduce losses and prevent spreading; (c) equipment and digital solutions for strengthening the laboratories' capacity for monitoring pesticide use which will improve the detection and identification of plant diseases and pests; and (d) digital technologies and solutions dedicated to reducing GHG emissions, such as databases and IT applications to track the movement of pesticides, ensuring traceability of pesticides to strengthen the sustainable use, monitoring, and reporting capacity.
- **Strengthening the institutional capacity of LILF** including through (a) a diagnostic analysis of the situation in the Romanian agriculture sector to strengthen the management and integration of qualitative and quantitative data/information and thus build institutional capacity for monitoring and reporting in accordance with EU and international obligations; (b) focus on software development for integrated collection, processing, analyzing, mapping, and reporting of data; and (c) consultancy services and trainings for the developed software and digital technologies.

## **Component 2: Knowledge-Sharing, Awareness, and Information/Innovation Transfer for Participating Farmers (EUR 20 million)**

32. Champion host farms will be selected with support of farmer associations and strengthened to showcase CSA pertaining to pollution-reducing practices, including best practice examples and

<sup>26</sup> Through INPCP, the Code of Good Agriculture Practices on the reduction of nitrates from agricultural sources and the Action Programme on nitrates (mandatory documents as required by the Nitrates Directive) were revised in 2021. According to the EU rules, these documents should be revised (the latest) every four years. The Romania Rural Pollution Prevention and Reduction (RAPID) project will ensure the revision and update of the Code of Good Agriculture Practices and Action Programme.

<sup>27</sup> The Code for the reduction of ammonia emission from agricultural activities should be prepared for Romania, as requested by the EU NEC Directive. In addition, Romania has the obligation (mentioned in the Sustainable Use of Pesticides Directive) of preparing guidelines for pesticides use (Romania has such a guideline, but it requires a full revision and update).



innovations on reduction of pollution and good farming practices. Enhanced national KTNs will be established for the prevention and reduction of pollution from agricultural sources. Also, a broad public information and awareness campaign of the project's activities and benefits will be undertaken at the local, regional, and national levels. Component activities include consultancy services, non-consulting services, goods and equipment, and training.

***Subcomponent 2.1: Demonstrating role model farms and promoting innovation (EUR12 million)***

33. An initiative will be financed to support the upgrade/modernization of existing farms for demonstration purposes, in all eight development regions of Romania. These farms will function as a role model to showcase different aspects of sustainable and climate-smart farming practices pertaining to comprehensive pollution management, that is, collection, storage, composting, application of manure and chemical fertilizers; use of low emissions modern field machinery for pesticides application; and practices for reduced emissions and losses of fertilizers and pesticides. The financed interventions at the farm level will sustain investments for environment protection. The envisaged investments will include but are not limited to facilities, equipment, and machinery that will lead to the prevention and reduction of pollution of nitrates, ammonia, pesticides, antimicrobials while also enhancing energy efficiency/emission reductions (a more detailed description and indicative types of investments are listed in Annex 2).

***Subcomponent 2.2: Establishing national knowledge transfer networks (EUR 4 million)***

34. Based on the role model farms and farmers organization networks, enhanced national KTNs will be established for the prevention and reduction of pollution from agricultural sources, contributing to accelerating the transition of the Romanian agriculture toward a sustainable and climate-smart agriculture system, in line with EU Farm-to-Fork targets and the various provisions of the EU and national legislation on environment protection. The KTNs and their training programs will function as a hub for advisory services, contributing to peer-to-peer learning and practical demonstrations within the farming communities, knowledge transfer on climate-smart agriculture techniques and practices, conditionalities, eco-schemes, organic farming, agri-environmental farming, farm environmental infrastructure, and eco-innovations. Through these knowledge transfers, the farmers would learn more about the different agricultural pollution prevention and reduction practices and their associated benefits (for example, sustainable use of fertilizers can help farmers save money and improve their livelihood), thus being incentivized to adopt them within their own farms. The KTNs will include the preparation and delivery of training materials aligned with scientific evidence and the best available techniques and practices, including climate mitigation, adaptation, and resilience solutions, encouraging modernization and innovation.

***Subcomponent 2.3: Awareness campaign (EUR 4 million)***

35. A broad public information and awareness campaign of project activities and benefits will be undertaken at the local, regional, and national levels on relevant aspects such as resilience and emissions mitigation activities, climate impacts, and climate-smart agricultural practices, types of pollutants and, their economic and environmental impacts, prevention and reduction activities, including through the organization of national and regional workshops, field trips, and study tours and conducting surveys on knowledge, attitudes and behavior.

**Component 3: Project Management (EUR 5.3 million)**

36. The component will support the PMU with project management, implementation, monitoring, reporting, evaluation, and environmental and social impact assessment and management, including through the provision of (a) funds for incremental operating costs and acquisition of goods; (b) PMU (non-civil servant staff) salaries for project implementation; (c) consultant and non-consultant services, supervision, monitoring, and financial audit; and (d) capacity building/training.

37. **The proposed project will be implemented by the existing Project Management Unit (INPCP PMU) housed within MEWF, to build on its extensive experience.** The existing PMU staff and their functions will carry over, including procurement activities, financial management (FM) of project funds, grievance redress mechanism (GRM), M&E, and reporting, thereby guaranteeing continuity. Additionally, the coordination and operational capacity of the existing PMU will be enhanced under the project with supplemental staff and consultants. The PMU will ensure coordination of interventions and monitoring of project activities as well as provision of information and knowledge sharing, aimed at attaining project objectives. This will involve a revision of the PMU procedures for clarifying the coordination mechanism between PMU, the beneficiaries, and other institutions involved. In addition, the PMU will also be responsible for citizen engagement (CE), ensuring project compliance with and monitoring implementation of the World Bank Environmental and Social Framework (ESF) framework-related issues and that due attention is given to gender aspects as per the project design. Capacity building of the PMU on ESF standards will be supported by the project.

**C. Project Cost and Financing**

38. **Total project cost of EUR 60 million (US\$63.6 million) will be financed through an Investment Project Financing (IPF) IBRD loan to Romania and the project will be implemented over a five-year period.** A majority of the IBRD loan will be earmarked for investments to strengthen the institutional capacity of pollution monitoring authorities subordinated to MEWF and MARD (see Table 2).

**Table 2. Summary of Project Components and Investment Costs (EUR, millions)**

Components	Project Financing	Proportion of Total (%)	Source
<b>Component 1: Modernization of Public Institutions in Charge of Pollution Control</b>	34.7	57.84	IBRD
<b>Component 2: Knowledge-Sharing, Awareness, and Information/Innovation Transfer for Participating Farmers</b>	20.0	33.33	IBRD
<b>Component 3: Project Management</b>	5.3	8.83	IBRD
<b>Total</b>	<b>60.0</b>	<b>100.00</b>	<b>IBRD</b>



#### D. Project Beneficiaries

39. **Farmers and rural dwellers will benefit from the project.** Component 2 will target up to 8,000 farmers<sup>28</sup> by enhancing knowledge transfer and mutual learning and exchanging experiences on best practices in pollution prevention and reduction, while information campaigns will inform on agricultural pollutants and will encourage sustainable agricultural systems. These private sector stakeholders will additionally benefit from investments carried out on agricultural waste management and enhanced institutional capacity of the service delivery to improve absorption of EU funds.

40. **Multiple organizations across Romania will directly benefit from the project.** Above all, MEWF and its subordinated agencies will benefit from all components of the project through strengthened institutional and human capacity, thus improving absorption of EU funds, enhancing M&E of environmental standards, and increasing awareness of environmental protection. MARD and its subordinated agency will also benefit from both Components 1 and 2. Component 2 will target several stakeholders including farmers—such as farmers certified under organic farming, farmer associations, academia, social entrepreneurs, and NGOs.

41. Indirect beneficiaries will be those who will benefit from improved ecosystems and public health, as a result of the improved monitoring and management of pollution from agricultural sources in rural areas which will lead to the prevention and reduction of pollution of nitrates, ammonia, pesticides, and antimicrobials.

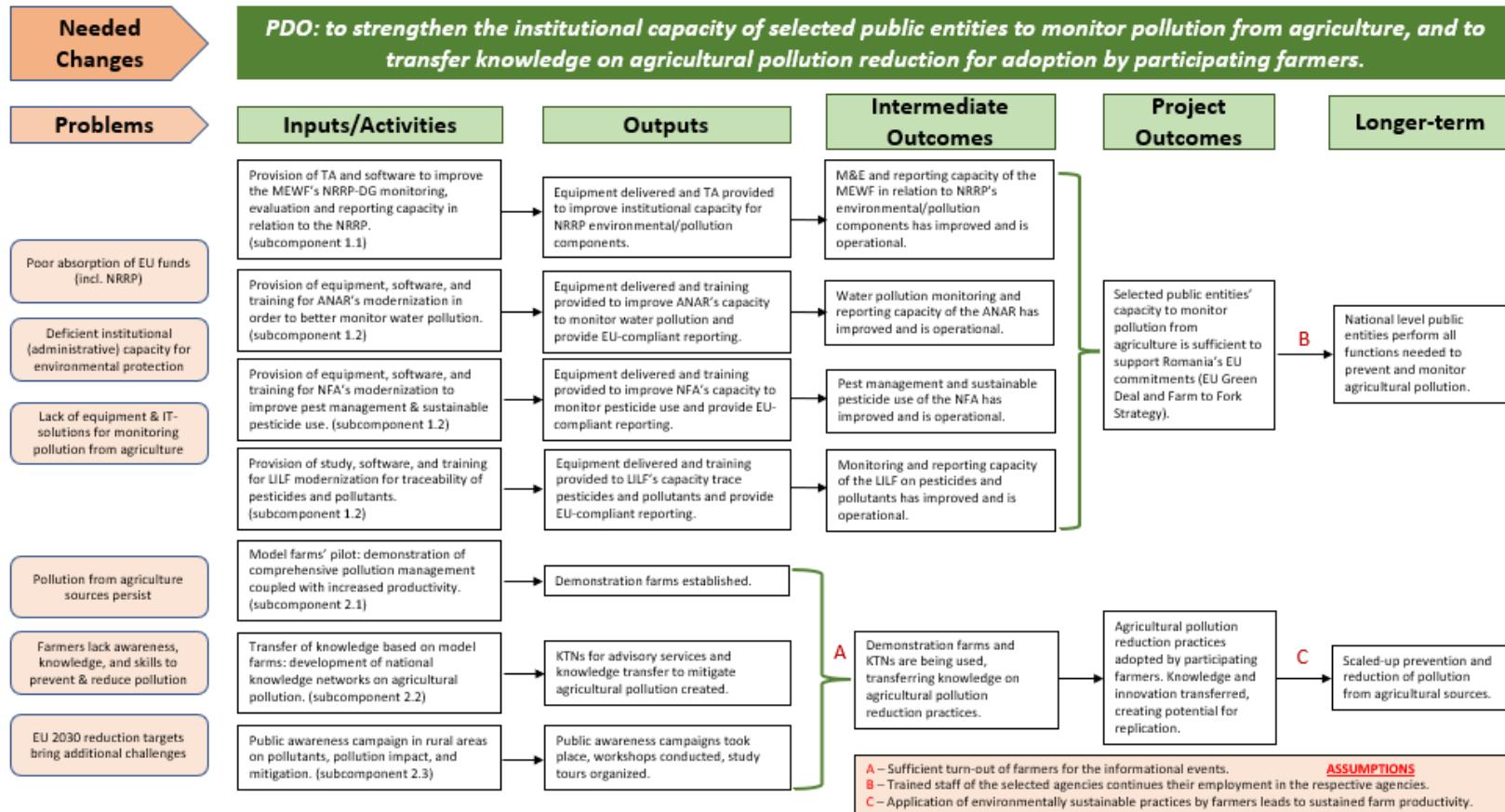
#### E. Results Chain

42. **The proposed project aims to strengthen the institutional capacity of selected public entities to monitor pollution from agriculture and aims to transfer knowledge on agricultural pollution reduction for adoption by participating farmers.** Prevention and reduction of pollution in waters and soil is important for health and affects the socioeconomic conditions of the Romanian population. Many key factors from the natural environment affect our health. The Theory of Change (ToC) for the project, underlying problems, links between each activity and outputs, outcomes, and PDO, is illustrated in Figure 2. The ToC is built around the PDO that underpins an integrated approach to address the identified problems. Seven activities and outputs are identified under the project, all leading to the long-term outcome of scaling up prevention and reduction of pollution from agricultural sources.

<sup>28</sup> The project aims to train 8,000 farmers through the KTNs and will target 4,000 farmers for adopting the practices as a result of the project interventions/trainings. These targets were based on the current INPCP experience, through which approximately 6,000 farmers have been trained on the Code of Good Agricultural Practices (with a focus on nutrient pollution) through 340 discussions groups that were established by the project and supported by around 225 champion farmers and 60 communal platforms hosting demonstrations for manure management good practices.



Figure 2. Theory of Change (Project Results Chain)





## F. Rationale for Bank Involvement and Role of Partners

43. **The World Bank is a long-standing trusted partner of the Government of Romania (GoR) and MEWF, providing a solid foundation for work under the project.** The proposed project will leverage over 20 years of collaboration with Romanian authorities on environmental reform and will build on previous projects that were implemented before Romania's accession to the EU. Through these engagements, the World Bank has developed a strong understanding of the challenges facing Romania's environment sector and an open dialogue with the Ministry of Finance (MoF), MEWF, and MARD. The project will help expand and build on activities in the ongoing INPCP for MEWF, leveraging important EU NRRP financial resources and providing the foundation for a long-term engagement and collaboration in the transformation of Romania's environment and agricultural sectors.

44. **The proposed project will contribute to institutional strengthening and the sustainability of public institutions' capacities to monitor pollution from agriculture beyond the project's lifespan, while also leveraging EU financial resources.** With a focus on institutional strengthening for MEWF and MARD to monitor pollution from agriculture, the project will ensure continuity of the institutional capacities that have been developed over the years. In addition, the project will also support the administrative capacity needed to maximize benefits from European funds: it will build necessary institutional administrative capacities for MEWF to leverage the environment protection related funds under the NRRP. More specifically, the project will not engage in financing the implementation of any physical infrastructure provisioned under the NRRP but will cover a financing gap for Romania, as funds for technical assistance and consultancy services (for example, for monitoring and reporting) under the NRRP environmental components (for which MEWF is responsible) have not been previously earmarked. Thus, the project will ensure complementarity and no overlapping with what EU financing covers under the NRRP; with a small financing, the project provides additionality by filling in the administrative capacity gaps of MEWF's institutional structure and mechanism through which important additional EU funds are leveraged. The World Bank's convening power will help strengthen coordination efforts in the agriculture sector. The World Bank's global expertise supporting public institutions and citizen-centric service delivery will ensure knowledge exchange and the identification of best fit approaches.

45. **The proposed project is timely as it helps Romania meet its environmental commitments.** The EGD stipulates, for the agriculture sector, a Farm to Fork Strategy with the overall objective of establishing a fair, healthy, and environment-friendly food system for consumers and the public sector as a purchaser. Together with the Biodiversity Strategy, the Farm to Fork Strategy defines a set of reduction targets partially foreseen to be achieved by 2030, including (a) reduction of nutrient losses by 50 percent, (b) reduction of fertilizer use by 20 percent, and (c) reduction of chemical pesticide use and risk by 50 percent. These new EU policies will require additional institutional, administrative, and human capacities, and investments for new data platforms will be needed to improve collection and monitoring of farm data to analyze sustainability indicators.

46. **The proposed project will contribute to the Common Maritime Agenda (CMA) and complement the World Bank Blueing the Black Sea (BBSEA) regional umbrella program (P173890).** As one of Black Sea economies joining forces that aim to make progress toward the Black Sea sustainability and meet the CMA, the actions to reduce nutrient pollution that would otherwise end up in the Black Sea will also contribute to the BBSEA program. Since the green and innovative activities defined in the BBSEA program



are focused on Georgia, Moldova, Turkey, and Ukraine, the pollution prevention and reduction efforts of the project in Romania can inform and support the dialogue with its regional partners.

#### Rationale for Public Sector Provisioning/Financing

47. **Public sector financing is justified by the project's substantial focus on local and global public goods.** The project will generate public benefits by strengthening the institutional capacity at local and national levels to monitor and control pollution from agriculture to improve quality and efficiency of agriculture pollution reduction and prevention in Romania. This will generate environmental benefits by ensuring better protection of soil and water quality and better habitat for biodiversity and reducing GHG emissions. The project will also generate new public knowledge and innovation transfer through the 'role model farms' to demonstrate the potential of climate-smart practices that also include comprehensive agriculture pollution management. Institutional strengthening, nonpoint pollution control, and knowledge generation and dissemination are considered public goods and require considerable public investments and governance. The socioeconomic benefits of such investments are public in nature and currently do not attract significant private sector finance.

48. **Ensuring the sustainability of environmental services is a responsibility of the State and is critical in upholding the rule of law.** The proposed operation focuses on activities to strengthen Romania's environment sector institutions and improve service delivery that fall under the clear mandate of the GoR, supporting the rationale for public sector investment. Project activities are fundamental to improving access, efficiency, and resilience in the environment sector. Moreover, the project will support the expansion of improved services to vulnerable and currently underserved populations.

#### G. Lessons Learned and Reflected in the Project Design

49. **The project design reflects lessons from previous operations in Romania and globally, analytical work and international best practices.** These lessons and how they have been reflected in project design are summarized in the following paragraphs.

50. **Stakeholder consultations.** To ensure the sustainability of public investments in Romania, consensus among various country stakeholders is essential. Throughout the project preparation, consultations have been carried out with various stakeholders, including key departments and subordinated agencies from MEWF, MARD, Managing Authority for Rural Development Programme (AM PNDR), MoF, ANAR, NFA, and LILF, as well as relevant research institutes, farmer associations, and NGOs. The consultations ensured consensus and sustainability of proposed project interventions among the stakeholders and confirmed that World Bank-financed activities are compatible with and complement existing government and EU-funded programs.

51. **Lessons learned from the Agriculture Pollution Control GEF Project (P066065) and INPCP (P093775) implementation were included in the design of the project.** The Agriculture Pollution Control Project promoted the adoption of environment-friendly agriculture practices and helped restore part of the former floodplain along the lower Danube, thus reducing discharge of nutrients and improving water quality in the Danube and Black Sea. Launched shortly after Romania's accession to the EU, the INPCP implementation helped address nutrient pollution through a concerted program of actions. Four major lessons can be drawn from the INPCP implementation, which informed the design of the project as



follows: (a) aligning of the project with EU policies and regulations helps achieve targets and supports with compliance of standards; (b) farmers, rural dwellers, and local communities' benefit from observing and learning of tangible results on innovative technologies and practices of pollution mitigating and prevention measures; (c) continuous involvement of local administration and communities in the project preparation and implementation is essential for ownership, commitment, and sustainability; and (d) dissemination of information through a wide public awareness campaign is crucial for widespread adoption of pollution mitigating and prevention technologies.

52. **Lessons learned from the comprehensive Romania Water Sector Diagnostic Report<sup>29</sup> (P164763)** highlights that improving the status of Romanian groundwater is challenging and requires ongoing efforts to continue the implementation of the Nitrates Directive and that MEWF and ANAR depend heavily on the compliance of the agricultural sector to achieve WFD goals. The long retention and pace of pollutants in aquifers make progress on improving groundwater quality difficult. With low-income levels compared to other EU countries and low commitment of farmers, run-off from fields and farms remains hard to control. The report also indicates that the combination of poor livestock management with underdeveloped sanitation and low capacity of small farmers leads to nitrate and microbial contamination of shallow groundwater that poses a general health risk for Romania's rural population. Positive incentives are recommended and indicate the need for farmers to have adequate organization and technical skills (including equipment). Component 2 of the project targets a range of activities that aim to generate new public knowledge and innovation transfer and contribute to farmers' behavior change through developing 'model farms' and KTNs to demonstrate climate-smart practices that also include comprehensive agriculture pollution management.

53. **Lessons learned from the Danube Water Program<sup>30</sup> (P146139)** have showcased that diffuse pollution represents the most important pollution pressure in the Danube River Basin,<sup>31</sup> and its better management represents an important area for improving the ecological status of river basins. The International Commission for the Protection of the Danube River also indicates that across the Danube River Basin, the area used for agriculture tends to decrease along with the number of farms. The increase in size of the remaining farms with an intensification of agricultural production is likely to happen. A sustainable intensification aims at an optimized use of resources without compromising environmental aspects. Component 2 promotes environment-friendly investments and practices in farms, including CSA targeting a sustainable use of resources.

54. In addition, as part of the **Reimbursable Advisory Services Agreement on Romania Traceability in the Agri-food Sector (P176076)**, a study<sup>32</sup> on the analysis of agri-food legal framework and recommendations developed by the World Bank for MARD highlighted that capacity building in risk analysis and data interpretation within the relevant competent authorities (such as for plant health) is needed. In this regard, the project aims to contribute to strengthening the institutional capacity of both ANAR and NFA.

<sup>29</sup> The World Bank. 2018. *Romania Water Diagnostic Report. Moving toward EU Compliance, Inclusion and Water Security*.

<sup>30</sup> <https://www.danube-water-program.org/>.

<sup>31</sup> World Bank. 2018. *A State of the Sector: Water and Wastewater Services in the Danube Region*.

<sup>32</sup> World Bank. 2022. Output No. 2: Study on the Analysis of Agri-food Legal Framework and Recommendations, as part of the Reimbursable Advisory Services Agreement on Romania Traceability in the Agri-food Sector, October 2022



### III. IMPLEMENTATION ARRANGEMENTS

#### A. Institutional and Implementation Arrangements

55. **MEWF is the authority within the GoR that is entrusted with the overall responsibility of implementing the project.** MEWF will implement the project through the existing PMU of the INPCP located within it, to build on its extensive experience. The PMU, headed by a Director General, will remain housed within MEWF premises to ensure integration with all other ministry functions and departments. MEWF will operate and maintain the PMU during the project implementation period with adequate staffing and resources, including procurement, FM, and M&E and will be responsible for ensuring compliance with the World Bank ESF standards.

56. **The PMU will have overall responsibility for the day-to-day implementation of the project.** Currently, the PMU has 21 employees under the INPCP to carry out core implementation activities (technical coordination, procurement, FM, legal, M&E, and logistics). The present staff and their functions will be carried over and maintained (ensuring continuity) and coordination and operational capacity of the existing PMU will be enhanced with technical staff/consultants who will be hired for new defined positions and their functions will be adapted to the implementation needs (such as IT specialist, phytosanitary expert, agricultural specialist, engineers specialized in farm facilities and equipment, environment specialist, social specialist, communication and awareness specialist, and behavioral science specialist). Further, capacity building and training will be provided to the PMU on the World Bank ESF standards. In carrying out specific activities, the PMU will collaborate/contract relevant Romanian institutions (public or private sector). The ministry, through the PMU, will sign an MOU with each relevant agency (MARD, NFA, LILF, ANAR, and NRRP-DG), which will describe the roles and responsibilities of the parties, including tasks and operational procedures. The draft MOUs will be part of the Project Operational Manual (POM), which will be signed no later than 30 days after project effectiveness and will specify the designated staff (focal points) of each entity.

57. **The POM will elaborate on the roles and responsibilities of partners involved in project implementation.** It will include details of institutional and implementation responsibilities (including the draft MOUs), technical aspects of all components and activities, guidance related to M&E of the Results Framework, requirements of the applicable ESF and its standards, disbursements and FM aspects, applicable procurement regulations and arrangements, and monitoring and reporting provisions. The POM will be an effectiveness condition for the project.

#### B. Results Monitoring and Evaluation Arrangements

58. **M&E arrangements will be designed for accountability, transparency, communication, and learning.** M&E activities will support project management by (a) tracking the progress of the project, (b) generating information on the status of the project activities, (c) analyzing and aggregating data generated at local and national levels, and (d) documenting and disseminating the good practices and key lessons learned from the project activities to stakeholders in Romania. A detailed review of the implementation progress will be conducted at the project's midterm review (MTR) to assess course correction where needed. Monitoring will follow the Results Framework of the project including PDO level indicators and



intermediate component level indicators. The PMU will provide the overall monitoring of information collection on project progress and compliance with ESF standards and fiduciary requirements. The PMU will define the M&E objectives, prepare the M&E plan and manual, and ensure its implementation. An M&E specialist will be hired by the PMU to contribute to the drafting of the M&E plan part of the POM. The M&E specialist will plan and implement the activities and report directly to the Director General of the PMU. Semiannual progress reports will be prepared and discussed during the regular World Bank implementation support missions. Necessary budget and resources for M&E will be allocated under Component 3, which will allow for necessary training of the M&E specialist and support project implementation.

### C. Sustainability

59. **A key feature of the project is to support a mix of knowledge transfer and investments in the modernization of existing operational farms through the involvement of farmer organizations.** The design and actions will not only ensure successful implementation of the project but also sustainability of interventions and investments well beyond the project lifetime. Sustainability will be ensured through the integration of farmers discussion groups in the farmer organization structure. At the same time, the investments in modernizing existing farms will only be realized if financial viability is showcased by the applicants. The proposed enabling activities are intended to develop and operationalize the necessary sustainability tools and cover the institutional, technical, and financial sustainability of the interventions, with due consideration to environmental sustainability and social inclusion.

60. **The project will focus on enhancing institutional sustainability.** The project will support the GoR in strengthening the institutional capacity to further improve its monitoring obligations to better deliver the current and future (EU) mandates for pollution control from agricultural sources. As the project will include IT related investments, the effectiveness and efficiency of pollution monitoring will enable the authorities to respond faster in view of an early warning system and fulfill their reporting obligations stipulated in the EU legislation. Project investments in digitalization are aligned with the National Digitalization Strategy, thereby enabling enhanced coordination between the central and decentralized administration. The project will further support the readiness of MEWF and its subordinated agencies to implement pollution reduction and prevention measures. Supporting institutional development, through the provision of training, capacity building, and improved data management for example, also helps ensure that infrastructure investments are sustainably planned, implemented, operated, and managed for long-term climate resilience and inclusion. The project balances activities focused on improving basic public services with those aimed at strengthening institutions. Moreover, project preparation has been characterized by close engagement with relevant stakeholders which is expected to strengthen institutional sustainability and capitalize on the already sustainable local and national institutions.

61. **Changing behavior.** The most effective means of reducing pollution is to prevent pollution in the first place. Hence, achieving sustainable change fundamentally depends on changing unsustainable practices and behavior. To enhance sustainability of interventions, the project will aim to incentivize behavioral changes through the implementation of awareness campaigns, provision of training programs to farmers and competent authorities, and the provision of grants and technical support. A triggering factor in the behavioral change of the agricultural producers is determined by consumers' patterns. Consumers should be encouraged to shift toward agri-food healthy products, obtained through



sustainable agricultural practices, thus contributing to a market demand for environment-friendly farming systems. Accordingly, an awareness and communication strategy will be prepared and implemented under the project.

#### IV. PROJECT APPRAISAL SUMMARY

##### A. Technical, Economic and Financial Analysis (if applicable)

62. **The project is expected to generate significant socioeconomic benefits.** Building on the achievements of the previous agriculture pollution control projects in Romania such as the INPCP, and with further strengthening of government institutions, the proposed project investments will contribute to prevention and reduction of agricultural pollution. The improved monitoring and management of pollution from agricultural sources in rural areas will lead to the prevention and reduction of pollution of nitrates, ammonia, pesticides, and antimicrobials, ultimately improving ecosystems and public health. The improved awareness of and availability of know-how on advanced sustainable and climate-smart farming practices will further reduce pollution and increase agricultural resilience and thereby food safety and the economic value of agricultural produce. The project is also expected to result in the reduction of GHG emissions due to the introduction (and potential scaling-up) of optimal use of fertilizers and improved animal management at the farm level.

63. **The strengthened capacity and effectiveness of relevant national institutions will further advance the compliance with EU legislation.** The project will support the country's alignment with the EU Water Directive by improving the efficiency of information management and monitoring the quality of surface water and groundwater resources. The project will also strengthen the technical capacity of research laboratories in the sampling and testing of various agricultural pollutants to be compliant with the EU requirements. Project interventions will also result in improved sectoral coordination within the Government toward the formulation of improved agriculture and environmental policies and programs, including on EU programming, and development of required action plans.

64. **Increased capacities of government institutions are a prerequisite for leveraging the EU NRRP for scaling up successful experiences in agriculture pollution management under the INPCP.** The mobilization of additional EU funds will advance the pollution control agenda nationally as well as regionally as actions to reduce nutrient pollution in Romania will also contribute to the pollution reduction in the Black Sea region.

65. **World Bank support provides considerable value added.** The World Bank's involvement increases the national government's exposure to international experience in agriculture pollution control and helps ensure lessons from the World Bank-supported nonpoint pollution reduction projects in Romania and elsewhere are incorporated. The World Bank brings its global experience in the capacity building of national environmental and agricultural institutions and in the design and implementation of projects focusing on climate-smart and sustainable farming and thus complements the core expertise of the project implementing agency.

66. **The economic case for the project is based on the existing evidence of economic returns to investments in agriculture pollution reduction, institutional strengthening and knowledge transfer, and**



**sustainable agriculture practices.** By design, the project is a capacity-building project and the quantification of economic benefits for such investments is difficult. The data required for conducting the economic analysis of ‘role model farms’ was not available during project preparation as the farms’ proposals containing technical characteristics will be available during project implementation stage. The quantification of benefits from the ‘role model farms’ component will therefore be conducted ex post, at the Implementation Completion and Results Report (ICR) stage of the project when the farm proposals are designed and implemented and realized returns to the investments can be calculated.

67. **There is, however, a strong economic case to invest in agriculture pollution control, new knowledge generation and transfer, and sustainable agriculture practices because, on average, they generate significant economic returns.** Specifically, convincing evidence exists in the implementation results of the World Bank/GEF agriculture pollution control projects implemented in Romania during 2002–2016. The APCP provided support for technology adaptation and extension for environment-friendly agricultural practices. Over its course, the percentage of households with livestock in the project area using village manure storage and household bunkers and segregating waste materials increased from 0 to 54 percent, leading to the estimated decrease of nutrient discharge into surface water and groundwater of about 15 percent for nitrogen and 27 percent for phosphorus (P) in 2006.<sup>33</sup> Ex post analysis of the subsequent INPCP<sup>34</sup> confirmed the reductions of nutrients leakage into the environment due to improved manure management and other measures. With improved management of manure and its use as fertilizer, on average, 70 percent of nutrients contained in the composted manure have been used by crops with a direct benefit to farmers with decreased reliance on purchased fertilizers, increased crop yields, and improved soil health. The estimated cost-effectiveness ratios of investments were between US\$10 per kg and US\$40 per kg. The ICR estimated the project internal rate of return at about 13 percent.

68. **More widely, there is increasing evidence that a close interaction between knowledge transfer networks, Government, and farmers is a promising way to achieve reduction of nutrient pollution in agriculture.** For example, the Croatia Agriculture Pollution Project (P100639) has achieved reductions of 30 percent of mineral fertilizer use in 84 percent of the project beneficiary farms, and this behavior change is expected to result in lower nutrient leaching to soil and water. In nitrogen management projects in Belgium and Denmark, advice provided to farmers for accurate and moderate fertilization and livestock manure management led to the reduction in the nitrogen surplus at farm level of 40 percent and 50 percent, respectively.<sup>35</sup> Globally, it was also found that the median rate of return on extension is over 60 percent,<sup>36</sup> thus confirming that new knowledge generation and transfer and development of extension services also generate considerable returns.

69. As demonstrated by the existing evidence of efficiency and cost-effectiveness of previous agriculture pollution control operations, the proposed investments in the project are expected to be

<sup>33</sup> Romania Projects on Agricultural Pollution Control and Integrated Nutrient Reduction: Black Sea and Danube Basin. [http://web.worldbank.org/archive/websit01501/WEB/0\\_CO-21.HTM](http://web.worldbank.org/archive/websit01501/WEB/0_CO-21.HTM)

<sup>34</sup> World Bank. 2016. *Romania Integrated Nutrient Pollution Project: Implementation Completion Report*.

<sup>35</sup> Srivastava J., et al. 2002. “Overview of World Bank Experiences with Agricultural Nonpoint Source Pollution Control Projects in ECA.” Presentation at Regional Workshop on Agricultural Non-Point Source Pollution Control in Black Sea and Baltic Sea Riparian Countries, Torun, Poland.

<sup>36</sup> Alston, J. M., et al. 2000. *A Meta-Analysis of Rates of Return to Agricultural Research and Development*. IFPRI Research Report 113. doi:10.1093/nq/s1-III.



economically justified. This conclusion would also apply to the potential investments under the NRRP window for Romania, in the event that funds are mobilized for scaling up the successful experiences in agriculture pollution control under the INPCP.

## B. Fiduciary

### (i) Financial Management

70. **An assessment of the FM capacity of the PMU and MEWF—the entity responsible for the fiduciary function of the project—was carried out in terms of staffing, planning, budgeting, accounting, internal controls and audit, flow of funds, financial reporting, and external audit.** The assessment concluded that the implementing entity has adequate FM arrangements in place to provide accurate and timely information on the status of project funds, as required by the World Bank. The PMU is well experienced with the FM and disbursement requirements of the World Bank, and the FM performance of the ongoing INPCP has been satisfactory. The FM procedures applicable to the project, including internal controls, and fiduciary arrangements will be detailed in the POM. Additional details on arrangements pertaining to the investment grants scheme will be included in the Grants Manual.<sup>37</sup> The FM risk is assessed as Moderate.

71. **The FM arrangements of the project will rely on the systems, procedures, and structures that are already in place at the PMU within MEWF and beneficiaries, with additional controls and procedures implemented for the grants scheme.** The finance and accounting function in the PMU is represented by staff experienced in public financial management and World Bank procedures. The project will use the existing disbursement mechanism applicable to World Bank-funded operations in Romania—expenditures will initially be prefinanced from the state budget and then the IBRD-eligible amounts will be periodically claimed by MoF for reimbursement by the World Bank. The loan proceeds will be transferred to the MoF account opened with the National Bank of Romania. Given the prefinancing mechanism to be used by the project, adequate and timely budget allocations are critical for effective implementation of project activities. Risk mitigation measures in this area include accurate and realistic financial planning, close monitoring and agile management of project budget, and regular engagement with MoF, both by MEWF and the World Bank. The PMU and project-supported beneficiaries will maintain appropriate accounting records in the existing systems. MEWF's internal controls framework is reliable and will be used for the project. Appropriate internal controls will also be instituted for the grants scheme to be financed under the project. Semiannual cash-based interim financial reports (IFRs) will be submitted to the World Bank in an acceptable format within 45 days after the end of each reporting period. The project financial statements will be audited by independent auditors acceptable to the World Bank, in accordance with terms of reference to be agreed with the World Bank. The annual audit reports will be due for submission to the World Bank six months after year end.

72. **The World Bank will exercise its FM oversight through a risk-based approach comprising of desk and on-site reviews, as appropriate.** As part of broader implementation support and supervision, the project's management of finances will be monitored through a risk-based approach that includes the following: (a) desk review of audit reports and management letters, IFRs, and status of action plans agreed with the counterparts following visits or audit findings, if any, and (b) on-site review of the continuous

<sup>37</sup> The Grants Manual will be a condition for disbursement for Subcomponent 2.1.



adequacy of the project's FM arrangements. These will include monitoring and reviewing the implementation status of any agreed actions and issues identified by the auditors as well as other issues related to project accounting, reporting, budgeting, internal controls, and flow of funds. Special emphasis will be placed on the adequacy of the budgetary allocations to prefinance project expenses and the controls and transactions pertaining to the grants scheme. A walk-through review of a sample of transactions will also be conducted during the on-site monitoring reviews.

#### (ii) Procurement

73. **Procurement under the project will be carried out in accordance with the World Bank Procurement Regulations for IPF Borrowers**, November 2020 (hereinafter referred to as 'Procurement Regulations'). The Guidelines on Preventing and Combating Fraud and Corruption in projects financed by IBRD loans and IDA credits and grants shall apply to this project. The procurement and contract management processes will be tracked through the Systematic Tracking of Exchanges in Procurement (STEP) tool.

74. **A procurement capacity assessment of the implementing agency and the PMU was carried out and procurement risk is assessed as Moderate with the residual risk Low after the mitigation measures are implemented.** The team assessed the risks to implement procurement processes and recommended measures to mitigate those risks. The INPCP PMU is well experienced with World Bank procurement procedures based on Procurement and Consultant Guidelines and the use of the STEP, which significantly reduces procurement risks. However, the INPCP PMU would require training on Procurement Regulations and resolving issues related to staffing. Recently, two of the three procurement specialists in the PMU resigned. This considerably increases the risk for procurement given the current (INPCP) and the upcoming (the project) workload which will be difficult to manage with just one procurement specialist. Currently, recruitment to fill the two vacant positions is in progress.

75. **The Project Procurement Strategy for Development (PPSD) has been prepared by the PMU.** The World Bank confirmed the receipt of the PPSD and the Procurement Plan, acceptable to the World Bank, on January 25, 2023. The PPSD describes the procurement approach that will support the development objective of the project and deliver the best value for money. Based on the nature, size, and complexity of procurement to be financed under the project, the PPSD suggests the most appropriate procurement methods to be applied. Annex 1 includes a summary of the PPSD as well as other details of the procurement arrangements.

### C. Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

76. The project does not trigger OP 7.50 - Projects on International Waterways. Therefore, an eligibility criterion for the investment grants will be included in the POM and Grants Manual mentioning



that the grants cannot be provided to activities that may use or risk polluting water from international waterways.

#### D. Environmental and Social

77. **The project is processed under the World Bank ESF and is classified as Moderate for both environmental and social risks.** Of the 10 Environmental and Social Standards (ESS), 6 are relevant for this project: ESS1 (Assessment and Management of Environmental and Social Risks and Impacts), ESS2 (Labor and Working Conditions), ESS3 (Resource Efficiency and Pollution Prevention and Management), ESS4 (Community Health and Safety), ESS5 (Land Acquisition, Restrictions on Land Use and Involuntary Resettlement), and ESS10 (Stakeholder Engagement and Information Disclosure). ESS6 (Biodiversity Conservation and Sustainable Management of Living Natural Resources), ESS7 (Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities), ESS8 (Cultural Heritage), and ESS9 (Financial Intermediaries) are not currently relevant as project activities will not affect biodiversity or protected areas, will not involve financial intermediaries and Romania does not have indigenous people. At this stage, the number of the proposed subprojects/model farms is expected to be equally spread across all eight regions; however, since their final location and technicalities are not yet identified, framework mitigation instruments are developed.

78. **Most of the expected environmental and social impacts and risks relate to Component 2—Subcomponent 2.1—which will support the upgrade/modernization of existing farms for demonstration purposes in all the eight development regions of Romania.** The planned civil works on the demonstration farms are expected to mainly consist of rehabilitation of existing buildings including shelter repairs, plastering, and painting, with minimal and temporary site-specific risks during the duration of construction. For these works, expected risks may include disposal of material excavated during construction/rehabilitation activities; occupational health and safety (OHS) of workers during construction and operational phases; increased levels of dust, noise, and vibration; potential chance finds of hazardous materials such as asbestos-cement pipes; and community health and safety risks from pollution to surface water and groundwater sources during construction. The project may invest in facilities, machinery, and equipment on the demonstration farms, which will require land use. As relevant, any stakeholder and risks associated with land use will need to be assessed and appropriate management plans will be developed before the establishment of the model farms.

79. **Other social risks relate to stakeholder identification and engagement to ensure that knowledge transfer activities lead to behavioral change and equitable access to opportunities to participate in and benefit from the networks, technologies, innovations, and demonstration farms.** Targeting the entire population with awareness campaigns is difficult, making it challenging to develop messaging and utilizing methods of engagement based on needs, interest, and incentives. This can be remedied through a comprehensive stakeholder engagement plan (SEP), which will act as the basis for developing subsequent campaigns and associated activities; delineate specific groups of stakeholders by project component; and ensure that groups such as women, Roma communities, and other farmers on the margins of intersectional exclusions especially in the rural areas are clearly identified. Considering the aim of achieving behavioral change, it will be important to engage the services of a behavioral specialist to provide technical support that complements social and communications functions in the PMU. Furthermore, ensuring equitable access to opportunities such as the national and regional workshops, field trips, and study tours under the project will need to be managed carefully, so as not to perpetuate



existing exclusions in the agriculture sector. To manage this, inclusive criteria and sustained stakeholder dialogue will need to be developed to inform the selection of model farms, farmer organizations, agricultural entrepreneurs, researchers, eco-businesses, and hosts of innovation to participate and benefit from the project activities under Subcomponent 2.1 and 2.2.

80. **Sexual exploitation and abuse/sexual harassment (SEA/SH) risk rating is Low.** This project does not involve major civil works which could exacerbate the risk of SEA/SH. Country laws and norms are well established to address such risks. However, a GRM will require addition of SEA/SH appropriate channels for uptake. The GRM will also need to be established and publicized among stakeholders no later than 30 days after project effectiveness.

81. **To manage the environment and social impacts and risks, MEWF has prepared and disclosed an Environmental and Social Management Framework (ESMF) whose key actions are summarized and incorporated by reference to the Loan Agreement through the Environmental and Social Commitment Plan (ESCP); these documents have also been publicly disclosed by the World Bank.** The ESMF was publicly disclosed on November 22, 2022, and consulted with stakeholders on December 5, 2022. The updated ESMF adopted by MEWF, incorporating the results of the consultations, was redisclosed on December 28, 2022. The ESMF sets out the environmental and social assessment requirements of the project's activities and provides guidance on the preparation of site-specific Environmental and Social Management Plans (ESMPs) and/or checklists as well as the contractors' codes of conduct. The ESMF refers to activities that can be addressed with good engineering and construction practices, by preparing and implementing adequate mitigation measures and applying adequate OHS practices during construction for both the construction workers and the communities. On the social side, the ESMF focuses on screening for potential land acquisition, labor impacts, and specific vulnerable groups (for example, women and Roma communities). An abridged version of the Labor Management Procedures will be included in the ESMF to identify categories of project workers, associated risks, and management arrangements. The requirement for the development of the site-specific ESMPs along with adequate staffing of the PMU with respect to environmental and social management is reflected in the ESCP. Site-specific environmental and social impacts will be presented in site-specific ESMP/ESMP checklists to be prepared by MEWF during the project implementation phase. The ESMP/ESMP checklist will be an integral part of bidding documents for contractors carrying out works and supplying equipment and machinery under the project. Contractors will also be required to prepare their own ESMP/ESMP checklist accordingly.

82. **A comprehensive SEP was prepared and disclosed (by both MEWF and the World Bank) and will be implemented in accordance with ESS10,** with key actions summarized as part of the ESCP. The SEP has mapped stakeholders for each of the project components and proposed appropriate inclusive means and methodologies of engagement; it has been publicly disclosed on November 22, 2022, and consulted with stakeholders on December 5, 2022. The updated SEP, incorporating the results of the consultations, has been redisclosed on December 28, 2022. In addition to agencies such as MEWF, ANAR, NFA, and LILF who are the key stakeholders, other stakeholders will include farmers and farmer associations and organizations, rural populations, including women and Roma, innovators, agri-entrepreneurs, and academia. Considering that the project intends to conduct campaigns and associated activities that will lead to behavioral change, the services of a behavioral change consultant to provide technical support throughout the project implementation will be critical. In the case of investments made in existing farms, the SEP includes details of relevant stakeholders and the process of engaging before, during, and at the



end of the period in which the farms will be used for this project. The SEP also includes details on the requirements of information disclosure, public consultations, and an outline of the GRM of the project.

**83. Responsibility and oversight of compliance with national environmental and social policy and the applicable ESS of the World Bank as detailed in the ESMF will be assigned to an environment and a social specialist within the PMU, as per the ESCP.** The PMU environmental and social specialists (to be hired) will also be primarily responsible for development of instruments and overseeing the implementation and monitoring of environmental and social aspects. They will also be responsible for defining the site-specific ESMPs and, in close collaboration with other relevant authorities, will lead the PMUs in monitoring compliance with proposed mitigation measures.

**84. The POM will detail the operationalization and oversight arrangements of the aforementioned instruments.**

#### **E. Gender, Citizen Engagement and Climate Change**

##### **Gender**

**85. The project will contribute toward closing the gender gap in women's access to productive assets.** Romanian women are involved in lower end of the agriculture value chains. While Romanian women account for 43.1 percent of the agricultural workforce, they are overrepresented in the segment of informal agricultural workers, with 71 percent of women who are working in agriculture doing so informally—the highest share of informal female agricultural workers in the entire EU. Being informally employed means that these women are strapped of the social benefits associated with formal work, including access to social protection and state pensions. In 2016, Eurostat data showed that 34 percent of Romanian farm managers (or agricultural owners) were women, compared to an EU-27 average of 30 percent. The majority of Romanian farm managers are managing, however, micro- and subsistence farms and with a share of 71 percent, women are overrepresented in the cluster of the vulnerable self-employed in agriculture in Romania. Romania has the lowest gender pay gap in agriculture in the EU, with women's gross hourly earnings being on average 5.2 percent less than those of men. Romania has the highest rate of unbanked persons in the EU: only half of Romanian women have a bank account, and only 17 percent of Romanian women have borrowed from a financial institution. Moreover, rural women have limited decision-making power, they are underrepresented in local decision-making bodies and leadership positions, and the share of female members of municipal councils stands at only 20 percent (EIGE 2022). For Roma women working in agriculture, additional factors further exacerbate these challenges, including particularly low educational outcomes, and traditional gender norms make it challenging for them to access services outside the household. This, coupled with higher-than-average poverty rates in rural Roma communities and widespread discrimination against the Roma, creates a complex set of barriers that hinders their ability to access opportunities and assets.

**86. The project will contribute toward closing gender gaps in women's access to productive assets.** The project will include a women-targeted outreach campaign to apply for the development of role model farms. Women-focused outreach activities to encourage female farmers to apply for the demonstration farm will be developed and implemented, such as information dissemination through channels available for women, which provides clear guidance on what the application procedure entails and how to receive additional support (for example, from NGOs). Trainings and support provided by the demonstration farms



will moreover focus on delivering those trainings in a manner to reach a maximum of female participants. Detailed conditions will be further elaborated in the POM. The project will moreover improve the conditions for women farmers to participate in the existing KTNs by carrying out a needs assessment to identify their participation-related gaps including issues of perceptions and accessibility (for example, due to childcare responsibilities) and identify practical ways to addressing their participation, for example, location and time of the meetings. In addition to the existing knowledge exchange networks, awareness raising activities targeting women on possibilities and benefits of participation in farmer discussion groups will be developed, and if it makes sense (that is, if there are communes where a sufficient number of women farmers might demonstrate interest), women farmer discussion groups that address the specific challenges and needs of women farmers might be piloted and evaluated as a tool for improving their ability to transition to pollution-reducing measures. The project will include targeted focus groups and surveys to measure progress toward closing gaps throughout project implementation.

**Table 3. Gender Results Chain**

Gender Gap	Gender Action	Gender Indicator <sup>38</sup>
Women are overrepresented among the informal farm workers, that is, are self-employed managing subsistence or micro farms; they have limited access to decision-making and productive assets, including limited access to external finance; due to the high degree of informality, women farmers are often not covered by formal safety nets. These barriers hamper the growth, innovation, and modernization potential of female-led farms.	<ul style="list-style-type: none"><li>Conduct targeted outreach campaign for (marginalized) female farmers</li><li>Support female farmers with grant application procedures, integrating a selection (prioritization) criterion that allocates additional points to applications by women farmers.</li><li>Develop targeted training programs for women farmers to ensure increased adoption of environmental practices to specific groups of women (that is, women-led farms, rural women, and women farmers)</li></ul>	Share of demonstration farms that function as training sites and are female led. Baseline: 0; Target: 35

### Citizen Engagement

**87. The project will promote CE and include a two-way feedback loop and monitoring throughout implementation.** During preparation, the project carried out stakeholder consultations with civil society, academia, and other relevant stakeholder, and their feedback was incorporated into the project design. Project implementation will include mechanisms to engage with citizens, beneficiaries, and stakeholders, as shown in Table 4. The project will carry out meaningful stakeholder consultations through focus groups and surveys and employ monitoring mechanisms such as satisfaction surveys, GRM, and multi-stakeholder discussion groups. Throughout the project implementation, the World Bank team will work closely with gender and social specialists of the government agencies to ensure that consultation plans and communication campaigns include CE.

**88. The project will support CE through a range of activities.** CE activities (physical consultations and through social networks and local media) will take place during the preparation of the Grants Manual and

<sup>38</sup> Of these, only one will be included in the Results Framework; the others will be reported in the progress reports.



procedures for the investment for the role model farms but also before the call for the proposals (with aim to inform and prepare the potential beneficiaries). Such activities will also take place after the completion of investments, with the aim to learn lessons for the Grants Manual directly from the beneficiaries (farmers) but also from focus groups with institutions and beneficiaries that will be formed to discuss the continuation of the grant activities beyond the project, that is, the sustainability prospects. Public awareness campaigns on the types and effects of rural pollutants will be organized, to inform on prevention and reduction activities. Best practice examples of farmers and rural households in selected regions will be used to share experiences with the remainder of the country, thus having a multiplier effect. Mobilizing local farmers and connecting them to local farmer community networks will not only create a platform for enhanced knowledge transfer and improve access to information and training and mutual learning on environment-friendly farming and eco-innovations but will also improve the social capital of local farmers, including farmers from vulnerable backgrounds (women and Roma), increase their voice in local decision-making processes, and improve their resilience to external shocks due to enhanced access to information and support networks. Project activities will therefore aim to achieve a change in perception and behavior, thereby contributing to prevention and reduction of pollution. Additional information is provided in the SEP.

**Table 4. Citizen Engagement (CE) Mechanisms, Project Activities, and Indicators**

CE Mechanism	Project Activity	Indicator
Participation in behavior change activities that help reduce pollution	With the aim to achieve behavioral changes, a comprehensive awareness campaign will be prepared for pollution prevention, including stakeholder consultations through focus groups and surveys. Moreover, farmer discussion groups will be organized and focused on tackling various pollutants from agriculture and promoting environment-friendly investments and practices, including CSA.	Beneficiaries reporting effective engagement processes established by the project (Share of project beneficiaries who report that the project has established effective engagement processes. Beneficiaries are participating farmers in the KTNs and the farmer discussion groups established).
Citizen satisfaction surveys	Collect data on organized trainings, workshops, implemented grants that fully reflect the needs of direct beneficiaries, collect data on beneficiaries' perception that help the project better monitor and improve its performance.	Beneficiaries satisfied with project-supported services (this indicator tracks the share of participating farmers expressing satisfaction with the newly adopted practices, on the basis of environmental protection).
GRM	Grievances are registered in the GRM and responded to within two weeks and resolved within four weeks.	Grievances registered related to delivery of project benefits are addressed (Percentage of the grievances submitted to the GRM established by the project that are addressed following the mechanism's procedures).



## Climate Change

89. **The project will contribute to climate change adaptation and mitigation.** The development of role model farms will target knowledge transfer on CSA pollution-reducing techniques and practices, contributing to both adaptation and mitigation. Targeting investments on knowledge transfer and advisory services, training, and capacity building will support farmers in curbing their GHG emissions by adopting low-carbon technologies while improving their good farming practices. This includes, for example, improving the management of carbon and nitrogen flows in the respective agriculture ecosystem; promoting energy efficiency of crop production and the use of equipment for agricultural processing and storage; demonstrating efficient nitrogen fertilizer use (by improving the rate, type, timing, placement, or precision of application); and promoting manure management including anaerobic digestion, drainage management, improved crop breeds, and biotechnology/innovations that reduce emissions. A national awareness campaign on pollution reduction and prevention techniques, including on climate impacts and climate-smart agricultural practices (for both mitigation and adaptation), will help contribute to climate change adaptation and mitigation efforts. Provision of goods (IT systems, tools, mobile laboratories, and so on) and digitalization solutions will target precision/low-emission agriculture machinery and equipment, aiming to contribute to climate change mitigation and adaptation.

**Table 5. Project Climate Co-benefits by Components**

Component and Activities	Mitigation	Adaptation
<b>Component 1: Modernization of Public Institutions in Charge of Pollution Control</b>		
Subcomponent 1.1: Strengthening the institutional capacity of MEWF	Subcomponent 1.1 strengthens the institutional capacity of MEWF to leverage the absorption of the NRRP investments (EUR 3.8 billion available funding) for environment-related protection measures which contribute to climate resilience and reducing emissions. Measures under the NRRP to support climate change objectives (adaptation and mitigation) represent 41% of the total amount allocated to the NRRP for Romania. Thus, the investments on strengthening the institutional capacity of MEWF to support NRRP implementation will have strong outcomes on achieving climate co-benefits across the country.	Subcomponent 1.1 strengthens the institutional capacity of MEWF to leverage the absorption of the NRRP investments (EUR 3.8 billion available funding) for environment-related protection measures which contribute to climate resilience and reducing emissions. Measures under the NRRP to support climate change objectives (adaptation and mitigation) represent 41% of the total amount allocated to the NRRP for Romania. Thus, the investments on strengthening the institutional capacity of MEWF to support NRRP implementation will have strong outcomes on achieving climate co-benefits across the country.
Subcomponent 1.2: Strengthening the institutional capacity of ANAR	Activities will include investments on digitalization, including the development of an IT tool for modeling the pollutant emissions from agricultural activities and the development of integrated information management systems, which will improve ANAR's operational efficiency. Furthermore, it will provide the information necessary for the farmers to properly calibrate/reduce the use and	The design of the IT systems and tools will include data recovery and backup solutions to prevent data loss in the event of climate-induced natural disasters.



Component and Activities	Mitigation	Adaptation
	application works of fertilizers, leading to lower emissions.	
Subcomponent 1.2: Strengthening the institutional capacity of NFA	<p>Changes in temperature and precipitation patterns can create new habitats for pests and pathogens and alter the life cycles of pests and pathogens, making them more virulent or increasing their geographical range. Heat stress and drought can increase the susceptibility of crops to and plants to certain diseases. This subcomponent will include activities to address these concerns, such as the technical assistance and the purchase of equipment for the development of a national network to improve surveillance and alert system (collection of weather data for early warning systems of climate events) on plant diseases and pests. The digitalization solutions will lead to real-time alerts and recommendations for preventive/in-time use of plant protection products, avoiding plant diseases to spread, and thus reducing the use and application works for the plant protection products, leading to lower emissions. Recommendations shall include the use of the appropriate type of plant protection products, in accordance with the changed meteorological conditions.</p> <p>The investments in mobile laboratories for inspection and calibration of pesticides field application equipment will save the travel of large machinery and equipment to the existing fixed laboratories and technical inspection points.</p>	<p>Changes in temperature and precipitation patterns can create new habitats for pests and pathogens and alter the life cycles of pests and pathogens, making them more virulent or increasing their geographical range. Heat stress and drought can increase the susceptibility of crops to and plants to certain diseases. This subcomponent will include activities to address these concerns, such as the technical assistance and the purchase of equipment for the development of a national network to improve surveillance and alert system (collection of weather data for early warning systems of climate events) on plant diseases and pests. The digitalization solutions will lead to real-time alerts and recommendations for preventive / in-time use of plant protection products, avoiding plant diseases to spread, and thus reducing the use and application works for the plant protection products, leading to lower emissions. Recommendations shall include the use of the appropriate type of plant protection products, in accordance with the changed meteorological conditions.</p> <p>The investments in mobile laboratories for inspection and calibration of pesticides field application equipment will save the travel of large machinery and equipment to the existing fixed laboratories and technical inspection points.</p>
Subcomponent 1.2: Strengthening the institutional capacity of LILF	Activities will include the development of digital technologies (databases and IT software) for processing, analyzing, mapping, and reporting data, including recording data on emissions and modeling, which will raise awareness and allow the drafting of informed low-GHG agricultural policies.	Activities will include investments on digitalization, such as the development of software recording data on emissions and modeling. The design of the IT systems and tools will include data recovery and backup solutions to prevent data loss in the



Component and Activities	Mitigation	Adaptation
		event of climate disasters. The diagnostic analysis and the digitalization/data modeling of emissions will enable farmers to adapt their practices to climate change.
<b>Component 2: Knowledge-Sharing, Awareness, and Information/Innovation Transfer for Participating Farmers</b>		
Subcomponent 2.1: Demonstrating role model farms and promoting innovation	Subcomponent 2.1 aims to promote climate-smart agriculture (by modernizing existing farms) and innovations of pollution mitigation and prevention, along with technical collaboration and capacity building.  At least 80 percent of the grants under Subcomponent 2.1 will be allocated to CSA/GHG emission reduction/adaptation measures and technologies for demonstrating role model farms and promoting innovation.	Subcomponent 2.1 aims to promote climate-smart agriculture (by modernizing existing farms) and innovations of pollution mitigation and prevention, along with technical collaboration and capacity building.  At least 80 percent of the grants under Subcomponent 2.1 will be allocated to CSA/GHG emission reduction/adaptation measures and technologies for demonstrating role model farms and promoting innovation.
Subcomponent 2.2 Establishing national KTNs	At least 80% of the content integrated in the training materials and programs (capacity building and information dissemination) for the KTNs and the farmer discussion groups will be related to climate smart agriculture, climate mitigation, adaptation, and practices for emissions reductions from agriculture. The investments in KTNs and their training programs will function as a hub for advisory services, contributing to peer-to-peer learning and practical demonstrations within the farming communities and ensuring knowledge transfer on CSA techniques and practices. Climate mitigation, adaptation, and resilience will be encompassed within the training materials, encouraging modernization and innovation. The farmer discussion group topics would also include practices for emissions reductions from agriculture, building of resilience to climate change, and development of more resilience practices.	At least 80% of the content integrated in the training materials and programs (capacity building and information dissemination) for the KTNs and the farmer discussion groups will be related to climate smart agriculture, climate mitigation, adaptation, and practices for emissions reductions from agriculture. The investments in KTNs and their training programs will function as a hub for advisory services, contributing to peer-to-peer learning and practical demonstrations within the farming communities and ensuring knowledge transfer on CSA techniques and practices. Climate mitigation, adaptation, and resilience will be encompassed within the training materials, encouraging modernization and innovation. The farmer discussion group topics would also include practices for emissions reductions from agriculture, building of resilience to climate change, and development of more resilience practices.
Subcomponent 2.3: Awareness campaign	With the aim to achieve behavioral changes, at least 80% of the building awareness campaign (information dissemination) will integrate	With the aim to achieve behavioral changes, at least 80% of the building awareness campaign (information



Component and Activities	Mitigation	Adaptation
	content related to climate smart agriculture, climate mitigation, adaptation, and practices for emissions reductions from agriculture. This will help enhance the awareness of climate impacts and CSA practices (for both mitigation and adaptation). Showcasing best practices of farmers and rural households in certain regions and sharing experiences with the remainder of the country will support the campaign.	dissemination) will integrate content related to climate smart agriculture, climate mitigation, adaptation and practices for emissions reductions from agriculture. This will help enhance the awareness of climate impacts and CSA practices (for both mitigation and adaptation). Showcasing best practices of farmers and rural households in certain regions and sharing experiences with the remainder of the country will support the campaign.

## V. GRIEVANCE REDRESS SERVICES

90. **Grievance redress.** Communities and individuals who believe that they are adversely affected by a project supported by the World Bank may submit complaints to existing project-level grievance mechanisms or the World Bank's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the World Bank's independent Accountability Mechanism (AM). The AM houses the Inspection Panel, which determines whether harm occurred, or could occur, as a result of Bank non-compliance with its policies and procedures, and the Dispute Resolution Service, which provides communities and borrowers with the opportunity to address complaints through dispute resolution. Complaints may be submitted to the AM at any time after concerns have been brought directly to the attention of Bank Management and after Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's Grievance Redress Service (GRS), please visit <http://www.worldbank.org/GRS>. For information on how to submit complaints to the World Bank's Accountability Mechanism, please visit <https://accountability.worldbank.org>.

## VI. KEY RISKS

91. **The overall risk of the project is rated as 'Moderate'.** The key risks to the achievement of the PDO and their corresponding mitigation measures are described in the following paragraphs. All other risks are inherently Moderate.

92. **Political and governance risk (Moderate).** Romania has continued to experience frequent changes in political leadership at the ministry and State Secretary (both within MEWF and MARD) levels in recent years. The current project preparation is a high priority for the GoR, MEWF, and MoF; however, changes in government composition could result in shifts in priorities and affect the pace of implementation. To mitigate this risk, the target activities are aligned with supporting the Government to strengthen its EU reporting obligations (including the WFD and EU Nitrates Directive requirements) and achieve its NRRP reforms and milestones and to work closely with champions at the management and



technical levels within MEWF, MARD, ANAR, NFA, and LILF. Moreover, while changes within the Government have been relatively frequent, building on a well-performing PMU within MEWF should guarantee smooth transition and continuity of the project. The project also continues to inform and build relationships at the political level and will target proactive communication with all relevant stakeholders during implementation. Based on mitigating factors, the residual risk is considered Moderate.

**93. Institutional capacity for implementation and sustainability challenges (Moderate).** The project will be implemented by a PMU that has extensive experience from the INPCP implementation. The PMU has been involved in the preparation of this project, together with MARD, ANAR, NFA, and LILF representatives. The PMU will have overall responsibility for the day-to-day implementation of the project and has a proven track record on project M&E. The PMU will be strengthened, drawing from its existing structure and management to further facilitate optimal project implementation. Interinstitutional collaboration between the various institutions poses a risk for smooth project implementation. To mitigate this risk, MEWF (through the PMU) will sign an MOU with all relevant entities (MARD, ANAR, NFA, LILF, and NRRP-DG), which will describe the operational procedures. The MOUs will include the designated staff (focal points) of each agency and their responsibility and tasks, ensuring a proper coordination across the different agencies and ministries. Residual risk is moderate, as draft MOUs will be part of the POM and MOUs are expected to be signed no later than 30 days after project effectiveness.

**94. Stakeholders (Moderate).** The project will involve several key stakeholders, primarily MEWF, MARD, ANAR, NFA, LILF, and farmers. Collaboration with central institutions coordinating cross-government initiatives is essential and will be ensured through an MOU. Activities under the Component 2 will involve additional stakeholders at the subnational level, mainly farmers as well as local administrations. A potential risk might be farmers' unwillingness to adopt sustainable agricultural practices. This will be mitigated through targeted behavior-change-related activities included under Component 2. To further reduce stakeholder-related risks, the project team will continue to build relationships with key sector stakeholders and work closely with local administration through the PMU. The stakeholder engagement activities are elaborated in the SEP, setting the residual risk as Moderate.

**95. Fiduciary risk (Moderate).** Fiduciary risks are mostly associated with timeliness and adequacy of budget allocations, fiduciary arrangements for the investment grants, and procurement capacities. The FM performance of the existing INPCP PMU was satisfactory during implementation. As the project is prefinanced from the state budget, the risk of insufficient and/or untimely budgetary allocations is present, particularly in the context of addressing fiscal pressure and strengthening financial discipline. This risk would affect completion of activities as per the planned timeline. Risk mitigation measures include accurate financial planning, close monitoring, and agile management of the budget and regular engagement with MoF, both by MEWF and the World Bank. The investment grant scheme under Component 2 also triggers risks in terms of the fiduciary capacity of the beneficiaries to procure, use, account, and report on the activities envisaged as per the procedures agreed. Appropriate procedures and guidelines will be developed under the project in terms of developing criteria for selection of beneficiaries, eligibility of expenditures, flow of funds, accounting and reporting on the use of funds, and PMU's monitoring of these grants. On the procurement side, the INPCP PMU is well experienced with World Bank procurement rules and procedures and the use of the STEP, which significantly reduces procurement risks. However, the INPCP PMU would require training on Procurement Regulations and resolving staffing issues. Based on the mitigating activities, the residual risk is considered Moderate.

**VII. DRAFT RESULTS FRAMEWORK AND MONITORING****Results Framework**

COUNTRY: Romania

Romania Rural Pollution Prevention and Reduction Project (RAPID)

**Project Development Objectives(s)**

The Project Development Objective is to strengthen the institutional capacity of selected public entities to monitor pollution from agriculture, and to transfer knowledge on agricultural pollution reduction for adoption by participating farmers.

**Project Development Objective Indicators**

Indicator Name	PBC	Baseline	End Target
<b>Institutional capacity to monitor and report on agricultural pollution is established</b>			
Reporting by public entities meeting defined criteria (Percentage)		0.00	80.00
Reports by MEWF meeting defined criteria (Percentage)		0.00	80.00
Reports produced by ANAR meeting defined criteria (Percentage)		0.00	80.00
Reports produced by NFA meeting defined criteria (Percentage)		0.00	80.00
Reports produced by LILF meeting defined criteria (Percentage)		0.00	80.00
<b>Agricultural pollution reduction practices adopted by participating farmers thru knowledge transfer</b>			
Participating farmers adopting agricultural pollution reduction		0.00	50.00



Indicator Name	PBC	Baseline	End Target
practices as a result of the project (Percentage)			
Participating farmers adopting agricultural pollution reduction practices as a result of the project - female (Percentage)		0.00	35.00

### Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	Intermediate Targets	End Target
			1	
<b>Modernization of Public Institutions in Charge of Pollution Control</b>				
NRRP's agriculture waste management component financing mobilized by MEWF with support by the project (Number)		0.00	50,000,000.00	250,000,000.00
ANAR staff have obtained skills to use the equipment provided by the project (Percentage)		0.00	50.00	100.00
NFA staff have obtained skills to use the equipment provided by the project (Percentage)		0.00	50.00	100.00
Software platform to trace pesticides and pollutants is developed and is operational (Text)		No platform is in place	No platform is in place	Platform is in place and operational
<b>Knowledge-Sharing, Awareness, and Information/Innovation Transfer for Participating Farmers</b>				
Demonstration farms that function as training sites are created (Number)		0.00	30.00	70.00
Share of demonstration farms that function as training sites are created (female-led farms) (Percentage)		0.00	20.00	35.00
Regions with established and functioning KTNs (Number)		0.00	5.00	8.00
Farmer Discussion Groups on knowledge transfer		0.00	200.00	400.00



Indicator Name	PBC	Baseline	Intermediate Targets	End Target
			1	
to prevent and reduce agricultural pollution are set-up and operational (Number)				
Share of women participating in knowledge networks, trainings, and consultations (Percentage)	0.00		35.00	35.00
Land area under sustainable landscape management practices (CRI, Hectare(Ha))	0.00		10,000.00	30,000.00
Agricultural pollution reduction and knowledge sharing events organized (Number)	0.00		4.00	12.00
Beneficiaries satisfied with project-supported services (Percentage)	0.00		60.00	80.00
Beneficiaries satisfied with project-supported services - female (Percentage)	0.00		60.00	80.00
Beneficiaries reporting effective engagement processes established by the project (Percentage)	0.00		60.00	80.00
Beneficiaries reporting effective engagement processes established by the project - female (Percentage)	0.00		60.00	80.00
Content on climate smart agriculture, climate mitigation, adaptation and practices for emissions reductions from agriculture integrated in training materials and programs for KTNs and FDGs (Percentage)	0.00		80.00	80.00
Content on climate smart agriculture, climate mitigation, adaptation and practices for emissions reductions from agriculture integrated in the awareness campaign (Percentage)	0.00		80.00	80.00
Grants mobilized for CSA/GHG emission reduction/adaptation measures (Percentage)	0.00		80.00	80.00
<b>Project Management</b>				



Indicator Name	PBC	Baseline	Intermediate Targets	End Target
			1	
Grievances registered related to delivery of project benefits that are addressed (Percentage)	0.00		80.00	80.00

#### Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Reporting by public entities meeting defined criteria	<p>This indicator tracks the share of annual reports produced by the selected public entities meeting defined criteria: reports are based on digitalized and integrated data system, compliant with national or EU requirements (with improved reliability, traceability, or integration).</p> <ul style="list-style-type: none"> <li>- Evaluation reports produced by MEWF (NRRP-DG) meet defined criteria (in line with reporting requirements, integrated, digitalized, and traceable)</li> <li>- Reports produced by ANAR laboratories meet defined</li> </ul>	Annual	Submitted reports produced by selected public entities	Review of project reports and materials prepared as a result of such processes	PMU M&E function



	<p>criteria (compliant with WFD 2000/60/EC requirements, integrated, digitalized and traceable)</p> <ul style="list-style-type: none"><li>- Reports produced by NFA meet defined criteria (compliant with EU Reg. 2017/625 and Directive 676/91/EEC requirements, integrated, digitalized and traceable)</li><li>- Reports produced by LILF meet defined criteria (compliant with EU Reg. 2017/625 and Directive 676/91/EEC requirements, integrated, digitalized and traceable)</li></ul> <p>Note: Much of the current reporting is done through pen and paper (with no digital tool rather than Excel sheets, prone to human errors) and lacks integration with other databases and traceability of data inputs. The project will develop institutional capacity by supporting the development of various monitoring and reporting IT/software tools</p>				
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	and deploying relevant monitoring equipment for each of the institutions (NRRP-DG, ANAR, NFA, LILF) and should thus lead to improved the capacity to report (which will be tracked and assessed based on the digitalization/reliability/trac eability/integration criteria mentioned above).				
Reports by MEWF meeting defined criteria	This indicator tracks the share of evaluation reports produced by MEWF (NRRP-DG) meeting defined criteria: reports are based on a digitalized and integrated data system, in line with reporting requirements (with improved reliability, traceability, or integration).	Annual	Submitted reports produced by MEWF (NRRP-DG)	Review of project reports and materials prepared as a result of such processes	PMU M&E function
Reports produced by ANAR meeting defined criteria	This indicator tracks the share of reports produced by ANAR laboratories meeting defined criteria: reports are based on a digitalized and integrated data system, compliant with WFD 2000/60/EC requirements (with	Annual	Submitted reports produced by ANAR	Review of project reports and materials prepared as a result of such processes	PMU M&E function



	improved reliability, traceability, or integration).				
Reports produced by NFA meeting defined criteria	This indicator tracks the share of reports produced by NFA meeting defined criteria: reports are based on a digitalized and integrated data system, compliant with EU Reg. 2017/625 and Directive 676/91/EEC requirements (with improved reliability, traceability, or integration).	Annual	Submitted reports produced by NFA	Review of project reports and materials prepared as a result of such processes	PMU M&E function
Reports produced by LILF meeting defined criteria	This indicator tracks the share of reports produced by LILF meeting defined criteria: reports are based on a digitalized and integrated data system, compliant with EU Reg. 2017/625 and Directive 676/91/EEC requirements (with improved reliability, traceability, or integration).	Annual	Submitted reports produced by LILF	Review of project reports and materials prepared as a result of such processes	PMU M&E function
Participating farmers adopting agricultural pollution reduction practices as a result of the project	The indicator measures, the share of participating farmers adopting improved agricultural pollution reduction practices because of modernization of farms, trainings and farmer discussion groups of KTNs (a	Mid-term and completion	Third party survey results	Surveys conducted by a third party at mid-term and completion	PMU M&E function



	total of 8,000 farmers are expected to benefit from this project; out of them, 50% are targeted to adopt agricultural pollution reduction practices as a result of the project). Adoption refers to change of practice or change in the use of a technology promoted or introduced by the project.				
Participating farmers adopting agricultural pollution reduction practices as a result of the project - female	The indicator measures, the share of participating female farmers adopting improved agricultural pollution reduction practices (because of modernization of farms, trainings and farmer discussion groups of KTNs) out of the total participating farmers adopting such practices (i.e. a total of 4,000 farmers are expected to adopt agricultural pollution reduction practices as a result of the project, out of which 35% women). Adoption refers to change of practice or change in the use of a	Mid-term and completion	Third party survey results	Surveys conducted by a third party at mid-term and completion	PMU M&E function



	technology promoted or introduced by the project.				
<b>Monitoring &amp; Evaluation Plan: Intermediate Results Indicators</b>					
Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
NRRP's agriculture waste management component financing mobilized by MEWF with support by the project	This indicator tracks the NRRP's agriculture waste management component financing mobilized (EUR) by MEWF with support by the project. Financing mobilized is defined as NRRP funds that are contracted by MEWF's NRRP-DG	Annual	Progress reports produced by NRRP-DG of MEWF	Review of project reports and materials prepared as a result of such processes.	PMU M&E function
ANAR staff have obtained skills to use the equipment provided by the project	This indicator tracks the share of targeted ANAR staff who complete the training for obtaining the skills to use the equipment for monitoring and reporting on the quality of surface and groundwater	Annual	Project reports produced by ANAR, and reports produced by equipment suppliers	Review of project reports and materials prepared as a result of such processes.	PMU M&E function
NFA staff have obtained skills to use the equipment provided by the project	This indicator tracks the share of targeted NFA staff who complete the training for obtaining the skills to use the equipment for monitoring pesticide use	Annual	Project reports produced by NFA	Review of project reports and materials prepared as a result of such processes	PMU M&E function



	The software platform will target integrated collection, processing, analyzing, mapping, and reporting of data to ensure traceability of pesticides and pollutants. The software platform will draw from MARD's various interfaces with other entities and their existing databases: the software will also record data on emissions (e.g., ammonia, nitrogen oxides etc.) and include data modelling in order to generate and transmit inter-institutional reports.	Annual	Reports	Testing of ICT Platform's features and functions	PMU M&E function
Demonstration farms that function as training sites are created	Measures the number of farms that have been modernized to become role-model farms.	Annual	Project reports	Review of project reports and materials prepared as a result of such processes	PMU M&E function
Share of demonstration farms that function as training sites are created (female-led farms)	Measures the number of female-led farms that have been modernized to become role-model farms.	Annual	Project reports	Review of project reports and materials prepared as a result of such processes	PMU M&E function
Regions with established and functioning KTNs	Measures the number of regions across the country with project established and functioning KTNs for	Annual	Project reports	Review of project reports and materials prepared as a result of such processes	PMU M&E function



	advisory services and knowledge transfer to prevent and reduce agricultural pollution for participating farmers.				
Farmer Discussion Groups on knowledge transfer to prevent and reduce agricultural pollution are set-up and operational	Measures the number of Farmer Discussion Groups on knowledge transfer to prevent and reduce agricultural pollution that are established and operational.	Annual	Project reports	1. Number of trainings / awareness raising workshops officially scheduled and completed; 2. Minutes of meetings. 3. Names and contact information of attendees. 4. Photos of the meetings.	PMU M&E function
Share of women participating in knowledge networks, trainings, and consultations	Share of women participating in knowledge networks, trainings, and consultations	Annual	Project reports	Review of project reports and materials prepared as a result of such processes	PMU M&E function
Land area under sustainable landscape management practices	The indicator measures, in hectares, the land area for which new and/or improved sustainable landscape management practices have been introduced. Land is the terrestrial biologically productive system comprising soil, vegetation, and the associated ecological and hydrological	Mid-term and completion	Third party survey results	Surveys conducted by a third party at mid-term and completion	PMU M&E function



	processes; Adoption refers to change of practice or change in the use of a technology promoted or introduced by the project; Sustainable landscape management (SLM) practices refers to a combination of at least two technologies and approaches to increase land quality and restore degraded lands for example, agronomic, vegetative, structural, and management measures that, applied as a combination, increase the connectivity between protected areas, forest land, rangeland, and agriculture land.				
Agricultural pollution reduction and knowledge sharing events organized	This refers to workshops and conferences organized during the lifetime of the project to share knowledge on sustainable agricultural practices to prevent and reduce pollution.	Annual	Project reports	Workshop/conference reports, minutes of the events, photos of the events etc.	PMU M&E function
Beneficiaries satisfied with project-supported services	This indicator tracks the share of participating farmers under sub-components 2.1 and 2.2	Mid-term and completion	Third party survey results	Satisfaction surveys conducted by a third party at mid-term and completion. The	PMU M&E function



	expressing satisfaction with the newly adopted practices, on the basis of environmental protection.			satisfaction rate will be based on the combined rate of Satisfied and Highly Satisfied respondents.	
Beneficiaries satisfied with project-supported services - female	This indicator tracks the share of participating farmers under sub-components 2.1 and 2.2 expressing satisfaction with the newly adopted practices, on the basis of environmental protection.	Mid-term and completion	Third party survey results	Satisfaction surveys conducted by a third party at mid-term and completion. The satisfaction rate will be based on the combined rate of Satisfied and Highly Satisfied respondents.	PMU M&E function
Beneficiaries reporting effective engagement processes established by the project	Share of project beneficiaries under sub-components 2.1 and 2.2 who report that the project has established effective engagement processes. Beneficiaries are participating farmers in the KTNs and the farmer discussion groups established.	Yearly. Mini-questionnaires after each particularly relevant CE activity would be used.	Mini-questionnaires after each particularly relevant CE activity and results of user surveys conducted at mid-term and completion	Averaging of male and female user satisfaction surveys results	PMU M&E function
Beneficiaries reporting effective engagement processes established by the project - female	Share of female project beneficiaries under sub-components 2.1 and 2.2	Yearly. Mini-questionnaires after each	Mini-questionnaires after each	Averaging of male and female user satisfaction surveys results	PMU M&E function



	<p>who report that the project has established effective engagement processes. Beneficiaries are participating female farmers in the KTNs and the farmer discussion groups established.</p>	<p>ires after each particularly relevant CE activity would be used, including user surveys at mid-term and completion .</p>	<p>particularly relevant CE activity and results of user surveys conducted at mid-term and completion</p>		
<p>Content on climate smart agriculture, climate mitigation, adaptation and practices for emissions reductions from agriculture integrated in training materials and programs for KTNs and FDGs</p>	<p>This indicator tracks the share of content related to climate smart agriculture, climate mitigation, adaptation and practices for emissions reductions from agriculture integrated in training materials and programs for KTNs and FDGs developed under sub-component 2.2. The KTNs and their training programs will function as a hub for advisory services, contributing to peer-to-peer learning and practical demonstrations within the</p>	<p>Annual</p>	<p>Project reports</p>	<p>Review of project reports and materials prepared as a result of such processes</p>	<p>PMU M&amp;E function</p>



	farming communities, ensuring knowledge transfer on climate-smart agriculture techniques and practices. Climate mitigation, adaptation and resilience will be encompassed within the training materials encouraging reducing GHG emissions, modernization, innovation. The farmer discussion group topics would also include practices for emissions reductions from agriculture, building resilience to climate change, and developing more resilience practices.				
Content on climate smart agriculture, climate mitigation, adaptation and practices for emissions reductions from agriculture integrated in the awareness campaign	This indicator tracks the share of content related to climate smart agriculture, climate mitigation, adaptation and practices for emissions reductions from agriculture integrated in the awareness campaign under subcomponent 2.3.	Annual	Project reports	Review of project reports and materials prepared as a result of such processes	PMU M&E function
Grants mobilized for CSA/GHG emission reduction/adaptation measures	This indicator tracks the share of grants (financing allocation) under Subcomponent 2.1 allocated to CSA/GHG emission	Annual	Project reports	Review of project reports and materials prepared as a result of such processes	PMU M&E function



	reduction/adaptation measures for demonstrating role model farms and promoting innovation.				
Grievances registered related to delivery of project benefits that are addressed	Percentage of the grievances submitted to the GRM established by the project that are addressed following the mechanism's procedures.	Annual	GRM logbook, project reports	Comparison of the time between the receipt of a grievance and its satisfactory resolution - with that stipulated in the GRM guidelines	PMU M&E function

**ANNEX 1: Implementation Arrangements and Support Plan****COUNTRY: Romania****Romania Rural Pollution Prevention and Reduction Project**

- 1. Project implementation will rely on the extensive experience of the existing INPCP PMU.** MEWF is the authority within the GoR entrusted with the overall responsibility of implementing the project, ensuring full compliance with the Loan Agreement and with the subsidiary agreement signed between MEWF and MoF. The project will be implemented by the existing PMU of the INPCP located within MEWF, to build on its extensive experience. The PMU will remain within MEWF premises to ensure integration with all other ministry functions and departments. MEWF shall operate and maintain the PMU during project implementation with adequate staffing and resources. Office space and arrangements for the PMU will continue to be provided by MEWF.
- 2. The PMU has broad experience working in project management.** MEWF will manage the project through the PMU, which is responsible for the implementation of the project including procurement, FM, M&E, reporting, and compliance with the World Bank ESF standards. Currently, the PMU has 21 employees under the INPCP to carry out core implementation activities (technical coordination, procurement, FM, legal, M&E, and logistics). The present staff and their functions will be carried over and maintained (ensuring continuity); coordination and operational capacity of the existing PMU will be enhanced with technical staff/consultants who will be hired for new defined positions and their functions will be adapted to the implementation needs (IT specialist, phytosanitary expert, agricultural specialist, engineers specialized in farm facilities and equipment, communication and awareness specialist, and so on). Further, capacity building and training will be provided to the PMU on the World Bank ESF standards.
- 3. The PMU will have overall responsibility for the day-to-day implementation of the project.** In carrying out specific activities, the PMU will collaborate/contract relevant Romanian institutions—in the public or private sectors. The PMU will sign an MOU with each relevant agency (MARD, NFA, LILF, ANAR, and NRRP-DG) which will describe the roles and responsibilities of the parties, including tasks and operational procedures. The draft MOUs will be part of the POM, are expected to be signed immediately after project effectiveness at the ministerial level, and will include the designated staff (focal points) of each entity. The PMU will be responsible for overall project monitoring and for the procurement and FM aspects of the project. Not later than 30 months after project effectiveness (or such other date as the Bank may agree), the PMU will carry out a mid-term review of the project and, prepare and furnish to the Bank a mid-term report in such detail as the Bank shall reasonably request.
- 4. The POM will detail the expected roles of the project partners involved in the implementation.** It will include details on institutional and implementation responsibilities, technical aspects of all components and activities, guidance related to M&E of the Results Framework, implementation of the requirements of the applicable ESF and its standards, disbursements and FM aspects, applicable Procurement Regulations and arrangements, and monitoring and reporting provisions.
- 5. M&E arrangements will be designed for accountability, transparency, communication, and learning.** M&E activities will support project management by (a) tracking the progress of the project, (b) generating information on the status of the project activities, (c) analyzing and aggregating data generated at local and national levels, and (d) documenting and disseminating the good practices and key lessons learned from the project activities to stakeholders in Romania. A detailed review of the implementation progress will be conducted at the project's MTR to assess course correction where needed. Monitoring will follow the Results Framework of



the project including PDO level indicators as well as intermediate component level indicators. The PMU will provide the overall monitoring of information collection on the progress of the project activities and in compliance with the ESF standards and fiduciary regulations. The PMU's responsibility will be to define the M&E objectives, prepare the M&E plan and manual, and guarantee its implementation. An M&E specialist will be hired by the PMU to contribute to the drafting of the M&E plan part of the POM. The M&E specialists will plan and implement the activities and report directly to the Director General of the PMU. Semiannual progress reports will be prepared and discussed during the regular supervision missions of the World Bank. Necessary budget and resources for M&E will be allocated under Component 3. This should allow necessary training for the M&E specialist and support implementation.

### Financial Management

6. An FM assessment of the project was conducted in accordance with the Financial Management Manual for World Bank IPF Operations (OPCS5.05-DIR.01 issued February 10, 2017). It concluded that the implementing entity responsible for implementation of the FM arrangements has adequate FM arrangements that should be able to provide, with reasonable assurance, accurate and timely information on the status of the funds as required by the World Bank. FM and accountability arrangements in staffing, planning, budgeting, funds flow, accounting, internal controls, financial reporting, and auditing are presented in the following paragraphs.

7. **Staffing.** The PMU's financial and accounting function is adequately staffed with experienced and qualified persons. They have experience in budgetary accounting and are currently supporting the implementation of the ongoing INPCP. The PMU is well experienced with the FM requirements of the World Bank, and the FM performance of the ongoing INPCP has been satisfactory. Adequate capacity for supporting and monitoring the grant scheme should be maintained by the PMU which will be consolidated with additional staff, including potentially on the FM side, considering the number of grants and volume of transactions envisaged. The PMU implementation capacity will be regularly assessed and supplemented if needed.

8. **Planning and budgeting.** The project will be prefinanced from the ministry's budget as per the framework arrangements applicable to the IBRD-funded IPF portfolio in Romania. The PMU FM staff will undertake the planning and record keeping for the project. An overall budget for the life of the project will be prepared, which will be revisited periodically and updated, as needed, to reflect the implementation progress. An annual work plan and annual budget will be derived from this overall budget, which will be agreed with the World Bank and then included in the annual state budget for approval by the parliament. Beneficiaries will prepare business plans during the application process and the PMU will exercise close communication and monitoring of the subprojects activities to forecast the expenses to be incurred. Budgetary allocations for contracts and payments under the project will be reflected in the ministry's budget under a separate title and article and will be subject to the national procedures applicable to the budget formulation and execution. Given the specific prefinancing mechanism, the risk of insufficient and/or untimely budgetary allocations is substantial. Mitigation measures will be implemented in terms of formulation of realistic budgetary estimates for the project and close monitoring of the budget execution with the aim to duly address any financing gaps that could affect project implementation. A close dialogue would also be maintained with MEWF, MoF, and the World Bank to ensure that the project benefits from adequate funding.

9. **Flow of funds and disbursement.** Project expenditures will be prefinanced from the ministry's budget, channeled in Romanian lei through the Treasury and recorded separately as per the national budgetary classification procedures. There will be no Designated Account for the project. The FM arrangements will be



described in a dedicated section of the POM which will be finalized before the effectiveness of the loan. Regarding flow of funds under the project-supported grant scheme for farmers (under Subcomponent 2.1), an invoice-based payment mechanism is envisaged, with up to 90 percent of loan financing and a minimum 10 percent co-financing by the farmers, no advances, and funds transferred by the PMU to the beneficiary based on satisfactory supporting documents provided by the beneficiary. The funds will be transferred from the PMU to the beneficiary in a separate account opened at the Treasury, following submission of adequate supporting documentation by the beneficiary, such as invoices, reception notes, and evidence of transfer of farmer's respective cash contribution in accordance with the terms of the Grants Manual. It was agreed that the fiduciary arrangements in terms of criteria for selection of the beneficiaries and eligibility of expenses, budgeting and planning, financing mechanism, verification of activities and supporting documentation to be provided by beneficiaries, and reporting will be described in the Grants Manual. The Grants Manual will be agreed with the World Bank before starting disbursement of Subcomponent 2.1 of the project. The disbursement method applicable to the project will be reimbursement. Loan proceeds will be used to reimburse the state budget for prefinancing of project-eligible expenditures. The PMU will report to MoF (in EUR and RON) the eligible expenditures incurred monthly and periodically provide MoF with statements of expenditures to report on the amounts spent for project purposes. Based on the documents received, MoF will regularly request reimbursements from the loan by sending applications for withdrawals to the World Bank, in accordance with the instructions included in the Disbursement and Financial Information Letter. The funds requested will flow from the World Bank to MoF's euro-denominated account opened with the National Bank of Romania, as reimbursement for the prefinancing used for project-eligible expenditures.

10. **Accounting and internal controls.** The PMU will use the existing FM systems and procedures to record and maintain project transactions. The system will allow capturing of the project transactions by categories, components, subcomponent, and activities, as needed. The beneficiaries will maintain proper supporting documentation and separate accounting records for project in line with the applicable legislation and procedures in place that would allow adequate identification of transactions incurred. The PMU will prepare a project financial manual guidance for staff, as a part of the POM. It will be reviewed by the World Bank and agreed by project effectiveness. The POM will detail the expected roles of the project partners involved in the implementation, including the fiduciary arrangements under the grants scheme. The POM will include details on institutional and implementation responsibilities, technical aspects of all components and activities, guidance related to M&E of the Results Framework, implementation of the requirements of the applicable ESF and its standards, disbursements and FM aspects, applicable Procurement Regulations and arrangements, and monitoring and reporting provisions. A Grant Manual will be agreed with the World Bank before disbursing funds under category 2 of the loan.

11. **Financial reporting.** The PMU will submit cash-based semestrial unaudited IFRs in the loan currency to the World Bank within 45 days after the end of each reporting period. The IFRs will be generated from the accounting records and will present all project transactions, including the grants scheme. The requirement for semestrial IFRs will be included in the Disbursement and Financial Information Letter.

12. **External auditing.** The external audit of the project will be conducted by a private audit firm (referred as external auditors) acceptable to the World Bank. The project will produce annual financial statements which will be submitted to the external auditors for auditing as per terms of reference to be agreed during preparation. The project budget will include the costs of audit fees, as needed. The project will submit the audit report along with the audited financial statements and the management letter to the World Bank no later than six months after the



end of each financial year. Within a month after their formal acceptance by the World Bank, audited financial statements and audit reports will be publicly disclosed in a manner acceptable to the World Bank.

13. The Supreme Audit Institution (Romanian Court of Accounts) is not yet fully familiar with the World Bank's procurement and FM guidelines and procedures. There are plans to strengthen its capacity in this area and others, such as financial and performance auditing, quality assurance, and communication. Under its larger mandate, the court will continue to carry out regular financial and compliance audits of MoF and MEWF. The World Bank will be informed about any project-related issues raised by the court, and it will determine if they require follow-up actions that should be addressed by the counterparts to strengthen the FM arrangements for this project.

14. **Conclusions of the FM risks and agreed mitigation measures.** A moderate FM risk is assessed for the project given the capacity of the existing PMU, which had a satisfactory FM performance during implementation of the ongoing INPCP. In the past, in the context of addressing fiscal pressure and strengthening financial discipline, MoF has followed a prudent conservative approach in project budget allocation. Generally, the project was allocated a substantially lower amount at the start of the year than the envisaged financing needs and based on the mid-year status of spending and estimated expenses, the budget was supplemented in the second semester of the year. This may have affected completion of certain activities as per the planned timeline and spending and disbursement from the IBRD loan. Risk mitigation measures include accurate financial planning, close monitoring and agile management of the budget, and regular engagement with MoF, both by MEWF and the World Bank. The investment grants scheme envisaged under the project will also require adequate internal controls for proper procedures in place to be followed by beneficiaries in procuring, using the funds, accounting, documenting, and reporting on the transactions incurred under each grant. The project will submit (a) semiannual IFR to the World Bank within 45 days after the close of each semester and (b) annual audit report within six months of the close of the financial year. The internal controls framework applicable to the project, including arrangements pertaining to the grants scheme, will be detailed in the POM and the Grants Manual. In addition, the World Bank's fiduciary team will provide project staff training on specific World Bank policies and guidelines, as needed. FM risks and compliance will be monitored during the World Bank's implementation support missions as well as through review of IFRs and annual external audits. With the implementation of these measures, the residual FM risk is expected to be Moderate.

15. The overall disbursement arrangements will follow the standard disbursement policies and procedures applicable to Romania as included in the Disbursement and Financial Information letter and as established in the Disbursement Guidelines for Investment Project Financing, dated February 2017. The minimum application size for reimbursements will be recorded in the Disbursement and Financial Information Letter.

## **Procurement**

16. **PPSD.** Based on the project requirements, operational context, economic aspects, technical solutions, and market analysis, a PPSD has been developed for the entire scope of the project. The PPSD identifies the following major types of activities: (a) consulting services and (b) goods. Although market research finds a significant number of potential consultants/suppliers within Romania for the types of services needed, the participation of reputable and qualified international consultants will be beneficial to project implementation. Therefore, the World Bank recommends that the project approaches international markets for larger-value contracts and for those critical for the project. Most of the contracts are of a relatively small value and would follow the national market approach. However, there are several large-value contracts (equipment for monitoring water quality, development of information management systems, development of an Integrated Water Source Analysis Center



System, development of software for traceability of the traded and applied public-private partnerships at national level, development of a prognosis and alert system on plant diseases and pests on agricultural and forest land for issuing alerts, and awareness campaign) which would require strong technical expertise both for the tendering phase and contract implementation phase. The project foresees a large number of IT contracts of different size and complexity. It is critical to have a strong IT capacity within the PMU.

17. **Procurement under Subcomponent 2.1.** Procurement arrangements under this subcomponent will be defined in the Grants Manual to be developed by the PMU and agreed with the World Bank. While private sector commercial practices may be followed for procurement of goods, works, non-consulting and consulting services under the grants in accordance with paragraph 6.46 and 7.26 of Procurement Regulations, given the limited capacities of potential beneficiaries and their limited experience in procurement of new machinery, equipment, and civil works (as they mostly procure seeds, fertilizers, and pesticides directly from the local dealers), the PMU will develop a set of templates for the beneficiaries to be used throughout the procurement cycle and will make these available to the selected beneficiaries. These templates will be part of the Grants Manual. A team of consultants within the PMU will support the beneficiaries throughout the process to ensure compliance with project documents and applicable procurement procedures. A similar approach is being successfully applied under the EU-funded program for the modernization of farms. It is foreseen that such an approach will considerably reduce the risk of delays, non-compliance, and implementation failure.

18. **National procurement procedures.** In accordance with paragraphs 5.3–5.6 of Procurement Regulations, when approaching the national market, the country's own procurement procedures may be used, if agreed under the PPSD. Public procurement in Romania is governed by four laws which transpose the 2014 EU Directives. The legislative package was adopted in 2016 and is supplemented by implementing rules adopted by Government decision. Instructions are issued by the National Agency for Public Procurement, which holds the regulatory function, whenever there is need to clarify the applicability of the legislative provisions. A web-based guide was developed as a primary source of guidance and in-depth practical information for the contracting authorities with a clear focus on the procurement planning. An improved e-procurement system (SEAP) is in place since April 2018 with 99 percent of the procurement volume being managed through the system. The National Office for Centralized Procurement was set up in 2018 with the scope to run centralized procurement for selected categories of products and services on behalf of other public authorities. In 2020, the World Bank assessed Romania's public procurement system and the impact of the national public procurement strategy adopted in 2015. The key recommendations were to (a) ensure the strategic oversight of the public procurement system and the adoption of decisions informed by the latest analysis; (b) ensure a stable and predictable legislative framework and proper public consultations whenever changes are needed, and (c) expand the scope and scale of centralized procurement. The PMU does not have experience or knowledge of public procurement procedures and the use of SEAP. Should national procurement procedures be used for contracts following national market approach, procurement will need to be managed by the relevant departments within the ministry. Nevertheless, several options have been discussed during project preparation, and based on viability of each option, it has been agreed that the project will use the World Bank's Standard Procurement Documents (SPDs) or other documents agreed with the World Bank for such contracts. If required, national procurement procedures may be used for contracts following the national market approach.

19. **STEP.** STEP will be used under the project. All procurement transactions for post and prior review contracts under the project must be recorded in/processed through this World Bank's planning and tracking system. This ensures that comprehensive information on procurement and implementation of all contracts for goods, works, non-consulting services, and consulting services awarded under the whole project are automatically



available. This tool will be used to manage the exchange of information (such as bidding documents, bid evaluation reports, no objections, and other procurement documents) between the implementing agency/PMU and the World Bank.

20. **Procurement Plan.** The PMU has developed a Procurement Plan for the entire scope of the project which is consistent with the project implementation plan. The Procurement Plan provides information on procurement packages, selection methods, procurement approach, and evaluation methods to be adopted for each contract and to be financed under the project. Any updates to the Procurement Plan will be submitted to the World Bank for review and approval. The detailed Procurement Plan will be prepared in STEP and will be published on the World Bank website.

21. **Complaint handling mechanism.** The project is required to ensure recording of procurement-related complaints in STEP. Both the World Bank and implementing agency/PMU will use STEP to track complaints. The PMU will be responsible for performing the following actions in STEP: (a) promptly record all complaints relating to the procurement process; (b) for procurement process complaints received on contracts subject to the World Bank's prior review, submit the borrower's proposed response to each complaint before issuing it to the complainant(s); (c) record the borrower's response to the procurement process complaints upon issuance to the complainant(s); and (d) promptly register requests for debriefings and update STEP with the record of the debriefings to interested parties.

22. **Procurement documentation.** All documentation for each procurement will be retained by the PMU according to the requirements of the Legal Agreement. The PMU will furnish such documentation to the World Bank upon request for examination by it or by its consultants/auditors. Documents with respect to procurement subject to post review will be furnished to the World Bank upon request.

23. **Procurement prior review thresholds.** The procurement prior review thresholds have been set by the World Bank based on the project's procurement risk level. All contracts at or above the set thresholds are subject to international advertising and the use of the World Bank's SPDs. Use of certain procurement approaches—specifically best and final offer, procurement processes involving contract negotiations, competitive dialogue, and sustainable procurement—is not foreseen under the project but these approaches will be subject to the World Bank's procurement prior review, irrespective of the contract value, if the decision is taken during project implementation to apply them. The applicable thresholds are defined in Table 1.1 and are specified in the textual part of the Procurement Plan.

**Table 1.1. Procurement Thresholds**

Type of Procurement	Method Threshold (US\$, millions)	Prior Review Threshold
Works (including turnkey, supply and installation of plant and equipment, and plant protection products)	Open International $\geq$ 20 Open National < 20 Request for Quotation $\leq$ 0.2	All contracts more than US\$15 million equivalent
Goods, IT and non-consulting services	Open International $\geq$ 2 Open National < 2 Request for Quotation $\leq$ 0.1	All contracts more than US\$4 million equivalent
Consulting firms	Selection Based on Consultants' Qualifications < 0.3	All contracts more than US\$2 million equivalent



Type of Procurement	Method Threshold (US\$, millions)	Prior Review Threshold
	Least Cost Selection and Fixed Budget Selection - in justified cases Quality - and Cost-based Selection and Quality-based Selection - in all other packages National market approach (As per paragraph 7.25 of the Procurement Regulations) < 0.5	
Consulting - individuals	No threshold	All contracts more than US\$400,000 equivalent
Direct selection	No threshold	With prior agreement based on justification: For goods/works/non-consulting services: As per paragraphs 6.8–6.10 of the Procurement Regulations. For consultants: As per paragraphs 7.13–7.15 of the Procurement Regulations.
Commercial practices	Thresholds defined above for the respective expenditure	As per paragraphs 6.46 and 7.26 of the Procurement Regulations

Note: The above thresholds are for the initial 18-month implementation period. Based on the procurement performance of the project, these thresholds may be subsequently modified.

24. **Procurement oversight.** The World Bank will exercise its procurement oversight through a risk-based approach comprising prior and post review and independent procurement reviews, as appropriate. Procurement supervision visits will be carried out at least twice per year. These will include special procurement supervision for post review on procurement processes undertaken by the PMU, with the goal of determining whether they comply with the requirements of the Legal Agreement. The post review will be conducted with an initial sampling rate of 10 percent of contracts, though this could be adjusted periodically during project implementation based on the project's performance.

**ANNEX 2: Detailed Description of Components****COUNTRY: Romania**

Romania Rural Pollution Prevention and Reduction Project

**Component 1: Modernization of Public Institutions in Charge of Pollution Control (EUR 34.7 million)**

1. This component will focus on institutional strengthening and capacity building of MEWF, MARD, and their subordinated entities ANAR and NFA. Going beyond the support provided to tackle nutrient pollution in the INPCP, investments on equipment, technologies, and software will be facilitated to address other agricultural pollutants, including support for the administrative capacity of MEWF and MARD, ultimately contributing to climate resilience. Good governance at national and regional levels is important for enhancing climate resilience while reducing emissions through pollution reduction and prevention.

***Subcomponent 1.1: Strengthening the institutional capacity of MEWF (EUR 8 million; includes consultancy services, non-consulting services, and goods)***

2. Within the framework of the NRRP, MEWF will have limited time (until end of 2026) to absorb a significant available EU funding (EUR 3.8 billion) of investments for environmental-related protection, including EUR 255 million for 254 investments that create and improve manure and other agricultural waste management systems, both at community and farm levels, with focus on collection, prevention, reduction, reuse, and recovery in compliance with EU legislation and transition to the circular economy. As a comparison, the INPCP and its Additional Financing (a total of EUR 100 million loan combined) have had a target of 150 such investments implemented over a period of approximately 14 years (since 2009 until 2023). Given the successful INPCP story, Romania has planned to scale up the investments at the national level for such systems using the NRRP funds.

3. **The subcomponent will support MEWF's administrative capacity for the NRRP's environment-related components.** MEWF has recently created a dedicated department—the NRRP-DG—with it that will focus on implementing the NRRP's environmental protection components. Despite being accountable for managing around EUR 3.8 billion of funds and employing 90 staff, the NRRP-DG no budget has been provisioned under the NRRP for administrative costs (including technical assistance and consultancy services). These are vital resources for MEWF's NRRP-DG swift and efficient implementation of the NRRP activities under its responsibility. Thus, this subcomponent will address the current identified administrative gaps and strengthen the institutional capacity of MEWF to monitor, evaluate, and report on investments, including on the NRRP's environment-related components (which will contribute to climate resilience and reducing emissions) by providing technical assistance, consultancy services, and goods to the NRRP-DG. These services include internal audit; technical assistance support for strengthening MEWF administrative capacity for monitoring and reporting NRRP investments; technical assistance for the development of software applications and licenses for the NRRP (including development of software for M&E and reporting applications and interface software for enhancing integration and communication with governmental structures for the NRRP); office equipment to support the monitoring and reporting capacity; vehicles for MEWF's administrative capacity; other capacity-building activities, including participating in trainings and organizing and attending conferences and knowledge exchange meetings.



***Subcomponent 1.2: Enhancing the national capacity for monitoring, prevention and reduction of pollution from agricultural sources in rural areas (EUR 26.7 million; includes consultancy services, non-consulting services, goods, equipment, and training)***

4. In alignment with the targets defined in the EU Farm to Fork Strategy and going beyond the investments on nutrient pollution in the INPCP, the subcomponent will support the following:

- **Strengthening the institutional capacity of ANAR** (authority in coordination of the MEWF) to monitor the quality of surface water and groundwater bodies with investments on (a) energy-efficient digitalization: state-of-the-art monitoring equipment and an integrated database with hardware and software (including servers) that will replace the inefficient fragmented databases of the 11 river basin management offices and support ANAR in monitoring the quality of surface water and groundwater bodies,<sup>39</sup> providing an early warning system in case of rising pollution, and supporting EU-compliant reporting; (b) energy-efficient equipment for the laboratories to ensure sampling and testing of pesticides, antimicrobials, heavy metals, and other pollutants; (c) training services for personnel from the water quality laboratories of ANAR in determining nutrients and water sampling, to improve the institutional capacity of ANAR for monitoring and reporting in accordance with Directive 676/91/EEC.
  - **Equipment necessary for the monitoring of water quality**, also in the context of droughts and floods (for the optimal running of the laboratories' activity). The investments proposed within this subcomponent, for water quality laboratories, address the stages of the analytical process in the laboratory: (a) carrying out determinations/analyses in water quality laboratories (equipment for analysis); (b) upskilling/training of laboratory personnel; (c) implementation and operationalization of Laboratory Information Management System (LIMS).
    - *Carrying out determinations/analyses in water quality laboratories (equipment for analysis).* ANAR is organized as a multisite network of 41 water quality laboratories and a National Laboratory of Water Quality whose main responsibility is monitoring the quality of water resources in accordance with the legislative requirements. All these laboratories are accredited in accordance with the requirements of the SR EN ISO 17025:2018 'General requirements for the competence of testing and calibration laboratories'. The need to purchase the equipment mentioned under this subcomponent derives from the obligation of the water quality laboratories to ensure the achievement of the performance criteria provided in the legislation in the field of water while ensuring the implementation of the new European requirements regarding the reporting of quality and quantity data on surface water and groundwater resources, according to the legislative provisions, as well as those deriving from the need to permanently optimize the performance of laboratory methods (limit of quantification, measurement uncertainty, accuracy, and so on).

Considering the monitoring requirement, more than 600,000 laboratory analyses are carried out annually at national level in the water quality laboratories of ANAR. As of 2022, some of the existing equipment can no longer be used or has a high degree of wear and tear, so there are laboratories that no longer have the capacity to fulfill all their obligations

<sup>39</sup> IT (software) investments will be carried out in alignment with the National Digitalization Strategy.



regarding the analysis of quality indicators for the surface water resource and the groundwater resource. Consequently, acquiring new laboratory equipment is critical to allow the provision of an optimal technical infrastructure for the network of water quality laboratories of ANAR to meet the quality monitoring requirements in accordance with the provisions of the WFD 2000/60/EC, Directive 2006/118/EC on the protection of groundwater against pollution and deterioration, and Directive 676/91/EEC on the protection of water quality against pollution caused by nitrates from agricultural sources (EU Nitrates Directive).

The specific investments under this activity include the following:

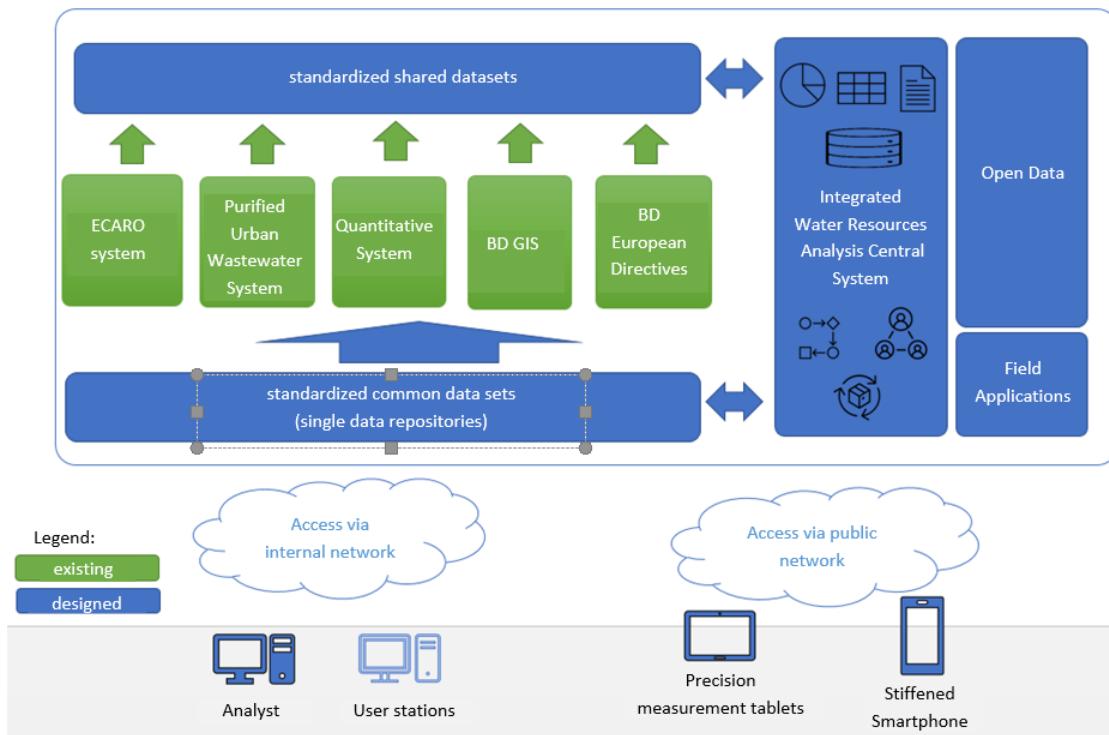
- Equipment for the determination of biological indicators relevant to eutrophication in accordance with Directive 676/91/EEC concerning the protection of water quality against pollution caused by nitrates from agricultural sources (for example, invertoscope and stereomicroscope)
- Equipment necessary for the monitoring of nutrients in surface water and groundwater resources (for example, UV-Vis Molecular Absorption Spectrometers)
- Equipment required in laboratory work for the analysis of heavy metals in accordance with the requirements of Directive 2013/39/EU of the European Parliament and of the Council of 12 August 2013 amending Directives 2000/60/EC and 2008/105/EC as regards priority substances in the field of water policy (for example, atomic absorption spectrometers).
- *Upskilling/training of laboratory personnel.* This activity will strengthen the institutional capacity of ANAR personnel from the water quality laboratories for monitoring and reporting in accordance with Directive 676/91/EEC through trainings for determination of nutrients and water sampling, chemical analysis, and monitoring of water status (for example, use of molecular absorption spectrometry and techniques for sampling water resources in accordance with the WFD).
- *Implementation and operationalization of LIMS.* In accordance with the requirements of SR EN ISO 17025:2018, the water quality laboratories must have access to the data and information necessary to carry out the laboratory activities and must have implemented an information management system in the laboratory. The water quality laboratories of ANAR produce large quantities of data and information without which all the reports required by the provisions of the European Directives and of the national legislation would not be possible. Tracking the analyzed samples in an analytical laboratory is a complex problem involving recording many details of the work protocol to complete all the necessary analyses and generating and using the data. The Laboratory Information Management Software provides the validity in the analytical flow, the command for capturing the recorded samples and their distribution, the results from the analysis of the input data until the validated results are obtained, ensuring the requirements of impartiality and traceability. LIMS is not only a tool used to provide information to customers but also an important tool used by management to ensure transparency and impartiality of laboratory work and to improve laboratory efficiency. To implement this information management system in all the laboratories of water quality of ANAR, and considering the extent of this investment and the specific particularities of customization



(design) of such a system, a phased approach is proposed:

- Step 1: Implementation of LIMS at the level of the National Laboratory of Water Quality and at the level of the water quality laboratories within a Water Basin Administration
- Step 2: Extension of the LIMS implementation at the level of the water quality laboratories within the other 10 Water Basin Administrations.
- **Institutional capacity building through digitalization (IT solutions).** This activity focuses both on the integration of the existing IT systems at the level of ANAR that manage the data and information on water uses and resources and on the creation of a new energy-efficient IT tool for modeling the nutrient pollution from agricultural activities.
  - ANAR is seeking to integrate its existing IT systems that manage data and information on water uses and resources to strengthen its capacity to analyze and take decisions, substantiating strategic and operational decisions based on an integrated and centralized information system (Integrated Water Resources Analysis Center System - IWRACS). Figure 2.1 highlights the existing IT systems and how they would feed into the IWRACS.

**Figure 2.1. ANAR IT Systems and connection with IWRACS**



Developing the IWRACS will strengthen the institutional capacity for knowledge and documentation of infrastructure elements in the water management network to reduce pollution from agricultural sources. It will strengthen the capacity of ANAR and subordinate institutions to collect field data, document the activities carried out on the ground, and have real-time access to the information existing at central level. The IWRACS



will also contribute to developing institutional capacity for advanced integrated analysis, by implementing an integrated policy and data management at ANAR level (ensuring common, shared, and public datasets and corresponding analysis tools).

To achieve the quantitative management system of water resources and the IWRACS to reduce pollution, especially from agricultural pollution, specific investments are considered at the level of ANAR, 11 Water Basin Administrations, 41 Water Management Systems, and 6 Independent Hydrotechnical Systems: datacenters - 1 IWRACS and a backup data center (to prevent data loss in the event of climate-related disasters); datacenter type systems consisting of basic energy-efficient hardware and software components ensuring the capabilities of data collection, storage and processing operationalized in the ANAR infrastructure; mobile equipment with built-in GPS for precision measurement; analyst stations for advanced analysis; data access stations; organization of data management policy document; data management information system (management of common, shared, and public data sets); data analysis methodology; and staff trained and certified in information analysis.

- Modeling of diffuse emissions of pollutants from agricultural activities should be carried out by ANAR to monitor the evolution in time and space of the concentrations of pollutants in surface, soil, and subsoil water and groundwater as well as the effects of the implementation of measures for the protection of surface water and groundwater. This subcomponent would seek the development of already existing software at the EU level in the field for modeling pollutant emissions to customize them to national requirements. At this moment, the modeling applications/tools for nutrients available at the EU level are MONERIS (Modeling Nutrient Emissions in River Systems), MORE (Modeling of Regionalized Emissions), and SWAT (Soil and Water Assessment Tool). In this respect, based on the analysis of the requirements for generating reports and the availability of software, as well as the conditions under which they can be developed specifically for Romania's needs, the optimal variant will be selected.

In the case of IT solutions developed under this project for strengthening the institutional capacity through digitalization, ANAR will ensure the operation of the equipment and the necessary space for the requested datacenter and equipment. Staff will also perform maintenance of equipment, systems, and applications.

As part of the continued efforts to reduce nutrient losses, the PMU will also continue supporting the national institutional responsibilities of reviewing and revising the Code of Good Agricultural Practices and its Action Programme<sup>40</sup> with an emphasis on integrating CSA as well as preparing other guidelines,<sup>41</sup> addressing the reduction of pollutants and emissions from agricultural sources.

<sup>40</sup> Through INPCP, the Code of Good Agriculture Practices on the reduction of nitrates from agricultural sources and the Action Programme on nitrates (mandatory documents as required by the Nitrates Directive) were revised in 2021. According to the EU rules, these documents should be revised (the latest) every four years. The Romania Rural Pollution Prevention and Reduction (RAPID) project will ensure the revision and update of the Code of Good Agriculture Practices and Action Programme.

<sup>41</sup> The Code for the reduction of ammonia emission from agricultural activities should be prepared for Romania, as requested by the EU NEC Directive. In addition, Romania has the obligation (mentioned in the Sustainable Use of Pesticides Directive) of preparing guidelines for pesticides use (Romania has such a guideline, but it requires a full revision and update).



- **Strengthening the institutional capacity of NFA** (subordinated agency of MARD) through targeted investments on (a) technical assistance and the purchase of equipment for the development of a national network to improve surveillance and alert system (collection of weather data for early warning systems of climate events) on plant diseases and pests, for an IPM and sustainable use of pesticides, and for procurement of an accompanying software solution that will lead to a system of automatic data processing for surveillance/prognosis, real-time alert, and recommendations on the type and volume of pesticides; (b) purchase of mobile laboratories for inspection and calibration of pesticides' field application equipment, to reduce losses and prevent spreading; (c) equipment and digital solutions for strengthening the laboratories' capacity for monitoring pesticide use which will improve the detection and identification of plant diseases and pests; and (d) digital technologies and solutions dedicated to reducing GHG emissions, such as databases and IT applications to track the movement of pesticides, ensuring traceability of pesticides to strengthen the sustainable use, monitoring, and reporting capacity.

The targeted investments under this subcomponent aim to strengthen the capacity of the laboratories of NFA, which contributes to the implementation of the provisions of Regulation (EU) 2017/625 on official controls, Regulation (EC) no. 1107/2009 on the placing of plant protection products on the market (which can be used safely for crop protection against diseases, pests and weeds), and Regulation (EC) no. 396/2005 on the maximum contents applicable to pesticide residues in or on food of plant and animal origin. The laboratories of NFA must ensure a high level of performance in the detection and official confirmation of plant pests by using appropriate equipment that can determine the parameters required by the methods in the working protocols to be implemented by the national reference and official laboratories. The efficiency (speed) and safety in the application of phytosanitary measures are critical to mitigate the risk of introducing and spreading quarantine organisms harmful to plants and plant products, the risk of using non-compliant plant protection products, and the risk of consuming food with residues of pesticides above the maximum permitted limits.

The specific investments under this subcomponent are intended to help NFA

- Maintain the status of National Reference Laboratory for the National Phytosanitary Laboratory, in accordance with Regulation (EU) no. 625/2017;
- Maintain and extend the Romanian National Association (RENAR) accreditation for the analysis methods used, in accordance with the requirements of the ISO 17025:2018 standard;
- Extend the accreditation for regional laboratories, a mandatory condition for performing official controls;
- Ensure a quick and reliable diagnosis by using appropriate equipment, able to meet the requirements of the official methods applied;
- Increase the analytical capacity of the laboratory to respond to requests and to reduce the duration of the issuance of test results (for example, analyses performed for samples intended for export of seeds); and
- Develop an efficient system for the inspection of application equipment which will lead to a reduction of the risks and effects associated with the use of plant protection products on human health and the environment, with positive results in increasing productivity and the quality of agricultural production, including the safe use of plant protection products.



The specific investments under this subcomponent will include (non-exhaustively) the following:

- Equipment for determining pesticide residues in plants and plant products (for example, liquid chromatography with mass spectrometry, chemical niche, and sample homogenizer).
- Equipment for determining the quality of plant protection products (for example, gas chromatography with mass spectrometry with accessories, laboratory centrifuge, multi-channel vacuum evaporator with nitrogen generator, laser granulometer, liquid extractor under pressure, and liquid chromatography with supercritical fluids).
- Equipment for diagnostic laboratories for detecting and identifying organisms harmful to plants and plant products (for example, thermal inactivation installation for automatic sterilization of contaminated and/or possibly contaminated water and sludge, sewage sterilization equipment, laboratory microscopes, epifluorescence microscope, interference contrast microscope, and nematode extraction centrifuge).
- 14 mobile inspection centers with special vehicles and equipment for carrying out the inspection of the equipment used for the application of plant protection products for professional use inventoried at the national level. This is a requirement of the EU legislation (Directive No 128/2009 establishing a framework for community action to achieve the sustainable use of pesticides) and contributes to achieving the objectives of the EU Farm to Fork Strategy.
- Software for developing an electronic register at the national level which will include the number of equipment inspected, type of equipment, manufacturing year, model, year of purchase, year of sale to a third person, and date of the next inspection of the equipment.
- A database system (hardware and software) to ensure the traceability of the quantities of plant protection products marketed and used at national level, through e-card. An e-card purchasing database system will be developed to ensure the traceability of the quantity of plant protection products sold by distributors and used by users/service providers as well as the centralization of stocks of plant protection products.
- A system (software) of forecasting and warning of pests in agricultural and forestry crops to issue warning bulletins for real-time information to users of plant protection products. Equipping NFA with a system to use meteorological data and provide early detection of plant pests for issuing forecasting and warning bulletins for farmers. Such a system would inform its users on (a) the time when the climatic conditions are met for the emergence of plant pests in crops; (b) the occurrence and existence of one or more plant pests in the culture; (c) localization of crops in the county and on when harmful organisms could settle into crops; and (d) the period during which the phytosanitary inspector will have to schedule a phytosanitary inspection in the field for the actual verification of climatic conditions and the collection of samples from the area.
- **Strengthening the institutional capacity of LILF** including through (a) a diagnostic analysis of the situation in the Romanian agriculture sector to strengthen the management and integration of qualitative and quantitative data/information and thus build institutional capacity for monitoring and reporting in accordance with EU and international obligations; (b) focus on software development for integrated collection, processing, analyzing, mapping, and reporting of data; the software will draw from MARD's various interfaces with other entities and their existing databases:



from NFA with regard to traceability of pesticides, from the animal identification and registration system and from the ANSVA for fertilizers and antibiotics; the software will also include data modeling of emissions (for example, ammonia and nitrogen oxides) to generate and transmit interinstitutional reports; (c) consultancy services and trainings for the developed software and digital technologies.

**Component 2: Knowledge-Sharing, Awareness, and Information/Innovation Transfer for Participating Farmers (EUR 20 million)**

5. Champion host farms will be selected with support of farmer associations and strengthened to showcase CSA pollution-reducing practices, including best practice examples and innovations on reduction of pollution and good farming practices. Enhanced national KTNs will be established for the prevention and reduction of pollution from agricultural sources. Also, a broad public information and awareness campaign of the project's activities and benefits will be undertaken at the local, regional, and national levels. Component activities include consultancy services, non-consulting services, goods and equipment, and training.

***Subcomponent 2.1: Demonstrating role model farms and promoting innovation (EUR 12 million)***

6. An initiative will be financed to support the upgrade/modernization of existing farms (member of a farmers' organization) for demonstration purposes, in all the eight development regions of Romania. These farms will function as a role model to showcase different aspects of sustainable and climate-smart farming practices pertaining to comprehensive pollution management, that is, collection, storage, composting, application of manure and chemical fertilizers; use of low-emission modern field machinery for pesticides application; and practices for reduced emissions and reduced losses of fertilizers and pesticides. The financed interventions at farm level will sustain investments for environment protection. The envisaged investments will include but are not limited to facilities, equipment, and machinery that will lead to the prevention and reduction of pollution of nitrates, ammonia, pesticides, antimicrobials while also enhancing energy efficiency/emission reductions (indicative types of investments are listed in Table 2.1).

**Table 2.1. Indicative Type of Investments for Supporting the Upgrade/Modernization of Existing Farms for Demonstration Purposes**

Investment Areas	Indicative Type of Investments
Sustainable use of nitrogen: (including nitrates, ammonia, and nitrous oxides compounds), soil and water conservation (including measures for climate change mitigation and adaptation)	<ul style="list-style-type: none"><li>Modernization of the stables' roofs for improving the ventilation/Equipment for ventilation systems (reducing emissions from animal housing)</li><li>Modernization of the stables' floors for a smooth cleaning and improved design (reducing emissions from animal housing)</li><li>Barns for wintering in traditional shepherding, including storage of the hay for bedding</li><li>Open summer barns for traditional shepherding</li><li>Equipment for removal of slurry into an inside or outside storage (reducing emissions from animal housing)</li><li>Slurry storages (including covered and equipped with mixers)</li><li>Shelterbelts (using woodlands to remove reactive nitrogen from the atmosphere near hot spots such as slurry storages)</li><li>Storages for chemical fertilizers</li><li>Equipment for slurry transportation (for example, tankers) and application (for example, trailing hose distributor, soil injection equipment)</li></ul>



Investment Areas	Indicative Type of Investments
	<ul style="list-style-type: none"><li>• Machinery and equipment for direct sowing (no tillage/minimum tillage)</li><li>• Equipment for irrigation water reuse (including for greenhouses) and fertigation</li><li>• Setting-up of grassland buffer strips on steep arable land</li><li>• Equipment for rapid drying of poultry manure</li><li>• Farm digitalization for improving the use efficiency of farm inputs (including chemical fertilizers) and reduction of farm pollution</li><li>• Solar panels (water heaters and/or photovoltaics)</li></ul>
Sustainable management of pesticides	<ul style="list-style-type: none"><li>• Pesticides storages at farm level, including associated with the reuse of plant protection products containers</li><li>• Machinery and equipment for the use of plant protection products with minimum losses—precision agriculture type, including emerging technologies, such as use of drones and satellite imagery</li><li>• Farm digitalization for the increasing plant protection products use efficiency</li></ul>
Reduced use of antimicrobials	<ul style="list-style-type: none"><li>• Open stables for improving the animal welfare conditions, thus improving the health of animals and preventing the use of antimicrobials</li><li>• Farm digitalization for an enhanced monitoring of animals' health</li></ul>
Biodiversity associated with grasslands and birds	<ul style="list-style-type: none"><li>• Watering and fencing systems, shade structures, and light mowing equipment—for avoiding overgrazing, grassland poaching, and disturbance of ground nests</li></ul>
Organic farming/biodiversity	<ul style="list-style-type: none"><li>• Setting-up of grassland strips within orchards and vineyards</li><li>• Machinery/equipment for weed control without the use of plant protection products</li></ul>

7. The investment grants (financed by IBRD funds) for the role model farms will consider relevant EU and national legislation. MEWF and MARD will closely coordinate to guarantee alignment and complementarity with the payments granted under the NSP. The investment grants will be subject to an open call procedure and cover project costs between EUR 10,000 and EUR 200,000. A Grants Manual<sup>42</sup> (prepared by the PMU) for the open call procedure will include all the eligibility, evaluation, selection and contracting provision, flow of grants, and so on, ensuring transparency and equal opportunities for applicants. A balanced territorial and investment typology distribution will be ensured. The applicants will be required to submit a business plan, including both financial and environmental indicators. In case of small projects (for example, up to EUR 20,000), instead of a business plan, the farmers may use a project proposal (templates will be part of the Grants Manual). Early stage preparation (before project effectiveness) will be ensured by the PMU for the elaboration of the Grants Manual, including national public consultations with the farmers organizations, NGOs, MARD, and MEWF. The Grants Manual will be a disbursement condition for Subcomponent 2.1.

8. The subcomponent will aim to promote CSA and innovation of pollution mitigation and prevention solutions in rural areas by drawing from national and international best practices; promoting technical collaboration; and building capacity among agricultural entrepreneurs, research, eco-businesses, and hosts of

<sup>42</sup> The Grants Manual will include, at a minimum, (a) objectives of the sub-grants, (b) area/types of investments, (c) criteria for the selection of eligible subprojects, (d) eligibility criteria for beneficiary farmers, (e) methodology for the calculation of the maximum amount of the sub-grant, (f) methodology for providing the grants, (g) form of sub-grant agreement, (h) eligible expenditures to be financed out of the sub-grant, (i) duration of subproject implementation, (j) budget and estimated number of the beneficiaries, (k) M&E of the sub-grant scheme, (l) measures for ensuring sustainability, (m) procedures for refunds of ineligible expenditures, and (n) supporting documentation.



innovation. Demonstration facilities will function as training sites, thus should be available for mutual learning and sharing of knowledge.

***Subcomponent 2.2: Establishing national knowledge transfer networks (EUR 4 million)***

9. Based on the role model farms and farmers organization networks, enhanced national KTNs will be established for the prevention and reduction of pollution from agricultural sources, contributing to accelerating the transition of the Romanian agriculture toward a sustainable and CSA system, in line with EU Farm to Fork targets and the various provisions of the EU and national legislation on environment protection. The KTNs and their training programs will function as a hub for advisory services, contributing to peer-to-peer learning and practical demonstrations within the farming communities, knowledge transfer on CSA techniques and practices, conditionalities, eco-schemes, organic farming, agri-environmental farming, farm environmental infrastructure, and eco-innovations.

10. The KTNs will include the preparation and delivery of training materials aligned with scientific evidence and the best available techniques and practices, including climate mitigation, adaptation, and resilience solutions, encouraging modernization and innovation. The training format would be designed in the form of farmer discussion groups (including specific female farmers discussion groups), workshops, and so on, supporting the idea of a local farming community, in which the members are helping each other. Technical designs of the modernized farms facilities and technical descriptions of the acquired machinery and equipment, prepared with the support of the PMU, will also be made available and presented in the farmer discussion groups, together with the monitoring data on economic and environmental impact collected from the modernized farms. Overall, the farmer discussion group topics would focus on tackling various pollutants from agriculture and promoting farm environmental-friendly investments and practices; reducing nitrates, pesticides use and risk, ammonia, nitrous oxide, methane emissions, and antimicrobials; encouraging organic farming and agri-environment schemes. The farmer discussion groups will also include topics such as reducing emissions from agriculture, building resilience to climate change (especially extreme heat and hydrological events), and developing more resilience practices.

11. Farmer organizations will be encouraged to be engaged in the implementation of the KTNs, thus ensuring sustainability of actions by incorporating the farmer discussion groups under their own advisory system.

12. The KTNs will ensure alignment and complementarity with the Agricultural Knowledge and Innovation System (AKIS) foreseen in the NSP for 2023–2027 by MARD. It was agreed that an institutional agreement<sup>43</sup> between MEWF and MARD will be established (through the MOU), defining an administrative demarcation and complementarity mechanism between the KTNs and AKIS. Under this institutional agreement, the PMU would become part of the support unit for AKIS (the body responsible for approving the AKIS thematic actions), thereby ensuring a coordination mechanism.<sup>44</sup>

***Subcomponent 2.3: Awareness Campaign (EUR 4 million)***

<sup>43</sup> The institutional agreement will include, among others, mechanisms for approving the content of the professional training programs and establishing the selection area of beneficiaries, as well as the possibility of cross-checking the lists with the farmers who benefited from the trainings from AKIS and KTNs to avoid double funding.

<sup>44</sup> In addition, an annual action plan will be jointly drawn up by the PMU and AKIS, based on the institutional agreement. The institutional agreement will also ensure a bidirectional flow of information for the elaboration of the annual action plans and for the identification of priority intervention areas, as well as for the evaluation of the effectiveness of the actions carried out.



13. A broad public information and awareness campaign of project activities and benefits will be undertaken at the local, regional, and national levels. Informing the public, notably the rural population/farmers, on climate impacts, and CSA practices, including the various types of pollutants in Romania and their economic and environmental impact and the project's various investments, pollution prevention and reduction activities, and resilience and emissions mitigation activities will be the subject of the campaign. Showcasing best practices of farmers and rural households in certain regions and sharing experiences with the remainder of the country will support the campaign. With the aim of achieving behavioral changes, a comprehensive awareness campaign strategy will be prepared and implemented for CSA and prevention and reduction of pollution from agriculture. Agri-environment commitments and organic farming will be promoted as sustainable agricultural practices, to provide high-quality, safe, and nutritious food. The project will support the organization of national and regional workshops, field trips, and study tours where knowledge and skills on effective low-cost environmental-friendly technologies will be shared. The project will also use the media (TV, radio, and agricultural and environmental journals), social media, and activities with school children as a vehicle for disseminating the benefits of the proposed activities. The public awareness campaign and associated activities will reflect the needs and interests of different groups, such as women and Roma communities. The surveys on knowledge, attitudes, and behavior will be expanded to allow for qualitative data collection and the consolidated results of the surveys will be shared with participating communities in a user-friendly format. Project staff will be encouraged to disseminate their experiences in national and international forums.

### **Component 3: Project Management (EUR 5.3 million)**

14. The component will support the PMU with project management, implementation, monitoring, reporting, evaluation, and environmental and social impact assessment and management, including through the provision of (a) funds for incremental operating costs and acquisition of goods; (b) PMU (non-civil servant staff) salaries for project implementation; (c) consultant and non-consultant services, supervision, monitoring, and financial audit; and (d) capacity building/training.

15. **The proposed project will be implemented by the existing Project Management Unit (INPCP PMU) housed within MEWF, to build on its extensive experience.** The existing PMU staff and their functions will carry over, including procurement activities, FM of project funds, GRM, M&E, and reporting, thereby guaranteeing continuity. Additionally, the coordination and operational capacity of the existing PMU will be enhanced under the project with supplemental staff and consultants. The PMU will ensure coordination of interventions and monitoring of project activities as well as provision of information and knowledge sharing, aimed at attaining project objectives. This will involve a revision of the PMU procedures for clarifying the coordination mechanism between PMU, the beneficiaries, and other institutions involved. In addition, the PMU will also be responsible for CE, ensuring project compliance with and monitoring implementation of the World Bank ESF framework related issues and that due attention is given to gender aspects as per the project design. Capacity building of the PMU on ESF standards will be supported by the project.



## ANNEX 3: Results of INPCP and Way Forward

## COUNTRY: Romania

## Romania Rural Pollution Prevention and Reduction Project

1. **INPCP Original Project (2008–2017).** INPCP (P093775) started in 2008, disseminating at national level, in nitrate vulnerable zones, the investments and interventions piloted within the GEF financed APCP (P066065). APCP had a total value of US\$10.96 million, was jointly financed by a GEF grant and local and governmental funds, and was implemented between 2002 and 2007, in a pilot zone, in Calarasi County. Considering the good results of the APCP pilot project, Romania received a loan from the World Bank for extending the good practices at national level and to support the GoR in facing the EU integration challenges in implementing the Nitrates Directive. The original INPCP had a total value of EUR 60 million, financed through the World Bank loan (EUR 50 million), the GEF Grant (EUR 4 million) and contributions from the beneficiaries (EUR 6 million). The project developed 86 community platforms for manure management in 81 communes, one 370 Kw biogas plant, 1,200 individual manure platforms, 250 ha of forest shelter belts, 170 km of sewage, and 6 wastewater treatment plants in 11 communes. These results led to a 50 percent reduction of the nitrates leakage in water in the project intervention zones, while 60 percent of the population in the project area adopted prevention measures for protection against nitrate pollution.

2. **INPCP Additional Financing (2017–2023).** The Integrated Nutrient Pollution Control Project - Additional Financing (AF) (P155594) was implemented at the national scale, as Romania chose to implement the prevention principle and to apply the Nitrates Directive across all its territory, starting with 2013. The INPCP AF had a total value of EUR 50 million, financed by a World Bank Additional Financing (EUR 48 million) and contributions of the beneficiaries (EUR 2 million). The general objective of the project is to provide support to the GoR for complying with the requirements of the EU Nitrates Directive at national level. Specific objectives include (a) promoting investments in local communities for the reduction of nutrient discharges into water bodies, (b) ensuring institutional strengthening and coordination among ministries and institutions involved in the implementation of the EU Nitrates Directive, and (c) promoting behavioral changes and good agricultural practices in local communities.

- **Reduction of nutrient discharges (nitrogen) by investments - Component 1.** In the framework of a Competitive Financing Program, 85 financing contracts have been signed with beneficiary communes after the approval of the feasibility studies prepared by the beneficiaries. One sewerage system and one treatment plant were finalized and contracts for the construction of 85 investments (comprising 90 communal manure storage and management platforms and 3 composting stations) were awarded and signed. By November 2022, 76 investment works have been completed, while the rest of the investment works are in progress.
- **Strengthening the capacity of assessment, monitoring, and reporting of progress achieved in implementing the Nitrates Directive - Component 2.** The project interventions enhanced ANAR's capacity for water quality monitoring focused on provision of targeted water quality monitoring equipment: meters, gas chromatographers, and piezometer drilling equipment, required to supplement and maintain the national monitoring network. Consultancy services for setting up and running a KTN to promote good agricultural practices and reduce the risk of nitrate pollution are under implementation. The revision of the Code of Good Agricultural Practices for water protection against pollution with nitrates from agricultural sources was finalized in August 2021.



- **Public awareness and information support - Component 3.** A national public awareness campaign, to promote the best practices and financial instruments for compliance with the EU Nitrates Directive, is under implementation.

3. **Achievements to date of the INPCP AF.** By November 2022, 63.6 percent of the targeted project areas (out of the target 70 percent) showed 10 percent reduction in nitrates discharge to water bodies, indicating a downward trend of nitrates concentration; 69 percent of the population in the project area are adopting preventive and remedial measures to reduce nutrient discharges (out of the 75 percent target); a nutrient load reduction of approximately 529.83 tons per year has been achieved (of the targeted 600). One indicator of the project is improving intergovernmental coordination which tracks progress of the implementation of the EU Nitrates Directive. Currently, this indicator is achieved according to the last meeting of the technical supporting group (the last update was on September 21, 2022) of the interministerial committee for the implementation of the action plan for the protection of waters against nitrate pollution from agricultural sources established by GD 964/2000. Another indicator is favorable EU assessment of Romania's progress toward meeting the EU Nitrates Directive. Romania's latest report regarding the implementation of the EU Directive 91/676/EEC (Nitrate Directive) for 2016–2019 was submitted to the EC in June 2020 and received a favorable EU assessment for Romania. Under chapter 7 of this report, an entire section is dedicated to the achievements of the INPCP, as a major investment project targeting the reduction of water pollution with nutrients, not only through important investments but also throughout the information, awareness, education, trainings, and support provided to farmers for water protection against pollution with nitrates originating from agriculture.

4. **Romania plans to scale the INPCP story by using NRRP resources.** The INPCP was until now the only project in Romania financing direct investments for implementing the Nitrates Directive by the local communities, bringing important environmental and socioeconomic benefits. Despite the results achieved by the INPCP to date with regard to nitrates pollution, agriculture remains a main source for environmental pollution in rural areas. Given the successful INPCP story, Romania has planned to scale up the investments at national level for agricultural waste management systems using the NRRP funds. Under the NRRP, Romania will have access to EUR 255 million for 254 investments that create and improve manure and other agricultural waste management systems, both at community and farm level, with focus on collection, prevention, reduction, reuse, and recovery in compliance with EU legislation and transition to the circular economy.

5. **Going forward through RAPID.** The focus of RAPID will go beyond nitrates, to include other pollutants from agriculture, such as pesticides, ammonia, nitrous oxide, nitrogen oxides, and antimicrobials, promoting organic farming and sustainable agricultural practices, thus coping with the EU Farm to Fork Strategy objectives and supporting Romania on its path to sustainable development. While the investments on communal platforms will continue under the NRRP (and Subcomponent 1.1 of RAPID will strengthen the institutional capacity of MEWF to leverage the absorption of NRRP investments by providing technical assistance and consultancy services for the M&E of the NRRP investments), RAPID will be engaged on fostering adoption of good farming practices for environmental protection through an integrated mix of (a) investments in role model farms, (b) KTNs, and (c) a national information and awareness campaign. The role model farms network will be set up through a grant scheme for modernizing existing farms, thus introducing new technologies related to farm facilities, machinery, and equipment for addressing the issues of pollution from agriculture. Consequently, 70 (existing) farms will be modernized, acting as host farms for the training of around 8,000 farmers, while country-wide availability of information and good practices dissemination will be ensured through a national awareness campaign. At the institutional level, the administrative capacity for monitoring the pollutants from agriculture and acting on pollution reduction will be boosted through investments in equipment for monitoring and laboratories, staff training, and digitalization for ensuring reliability and traceability of the data.