



## Global Environment Facility

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August 29, 2001

Mr. Lars Vidaeus  
GEF Executive Coordinator  
The World Bank  
1818 H St., NW  
Room MC 4-111  
Washington, DC 20433

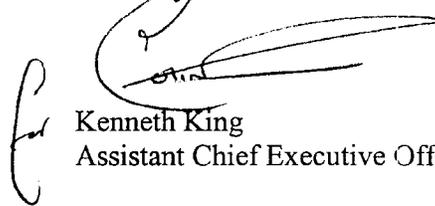
Dear Mr. Vidaeus,

I am pleased to inform you that the request for \$300,000 in PDF resources for the project proposal *Moldova: Agricultural Pollution Control Project*, has been approved by the CEO on August 29, 2001.

It is understood (i) that during preparation, the comments of GEF Secretariat, Implementing Agencies, and other organizations will be taken into account to address technical issues and to ensure coordination of activities, and (ii) that when the project is submitted for Work Program inclusion it will be well advanced in preparation and responsive to the general project review criteria as well as to specific comments in the Secretariat's Project Review Sheet.

Please find attached a copy of the project tracking sheet for your records.

Sincerely,



Kenneth King  
Assistant Chief Executive Officer

**Moldova: Agricultural Pollution Control Project**

Authority	GEF Contribution (\$ million)	Total Cost (\$ million)	Requested Action	Signature	Date
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**Pipeline Entry**

Program Manager			Recommendation	<i>Alfred M. Duda</i> Alfred M. Duda	7/24/01
Team leader			Clearance	<i>Herbert Acquay</i> Herbert Acquay	8/1/01
CEO			Approval	<i>M. T. El-Ashry</i> Mohamed T. El-Ashry	8/1/01
<b>PDFB</b>	<b>\$0.300</b>	<b>\$0.340</b>			

Program Manager			Recommendation	<i>Alfred M. Duda</i> Alfred M. Duda	8/29/01
Team leader			Clearance	<i>Herbert Acquay</i> Herbert Acquay	8/29/01
CEO			Approval	<i>Mohamed T. El-Ashry</i> Mohamed T. El-Ashry	

**Work Program Inclusion**

Program Manager			Recommendation	Alfred M. Duda	
Team leader			Clearance	Herbert Acquay	
CEO			Approval	Mohamed T. El-Ashry	

**Council Approval**

Need to circulate to Council for	>second review prior to CEO endorsement (4 weeks review period)	<input type="checkbox"/> Yes
	>CEO endorsement (second review waived)	<input type="checkbox"/> Yes

Program Manager			Recommendation	Alfred M. Duda	
Team leader			Clearance	Herbert Acquay	

**Endorsement w/o PDFB**

Program Manager			Recommendation	Alfred M. Duda	
Team leader			Clearance	Herbert Acquay	
CEO			Approval	Mohamed T. El-Ashry	

**Final Approval**

Implementing Agency	Approval
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Cummulative GEF Contribution \_\_\_\_\_

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**Samia Rechache**  
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08/30/2001 04:04 PM  
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Extn: 84128                      GEF  
Subject: Approval -WB OP8 Moldova Agricultural Pollution PDF-B

Please find attached PDF-B Approval for the following project:

MOLDOVA: Agricultural Pollution Control Project ----- OP-8



8-30-01 MALDOVA Agri Pollu-WB-OP8.l

Samia Rechache  
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To: Wbgef Operations/Ou=Service  
cc: Geflwr

# OFFICE MEMORANDUM

DATE: August 15, 2001

TO: Mr. Ken King, Assistant CEO, GEF Secretariat  
Att: GEF PROGRAM COORDINATION

FROM:  Lars Vidaeus, GEF Executive Coordinator 

EXTENSION: 3-4188

SUBJECT: **MOLDOVA: Agricultural Pollution Control  
PDF Block B Request**

Please find attached a PDF Block B request for the above-mentioned project. The project concept entered the GEF pipeline on August 1, 2001. We would appreciate receiving any comments by **August 23, 2001**.

We are also requesting GEFSEC to issue the CEO's no-objection to the PDF-B at the end of this review period.

Many thanks.

**Distribution:**

**Messrs.:** R. Asenjo, UNDP  
A. Djoghlaif, UNEP (Nairobi)  
K. Elliott, UNEP (Washington, DC)  
M. Gadgil, STAP  
M. Griffith, STAP (Nairobi)  
*W. Kennedy, EBRD*

cc: Messrs./Mmes. Srivastava, Sehgal, Battaglini (ECSSD); Ritter (Acting RC) and Hanrahan, Hatzios, Khanna, Aryal (ENV); ENVGC ISC, Relevant Regional Files

**COVER PAGE INFORMATION**

1. Country: Republic of Moldova

2. Focal Area: International waters

3. Operational Programme: Integrated Land and Water Multiple Focal Area (OP 9) Waterbody Based Operational Program (OP 8)

4. Project Title: Moldova: Agricultural Pollution Control Project

5. Total Cost: US\$10 - 15.0 m

6. PDF Request: US\$300,000

7. Government of Moldova contribution: US\$40,000

8. Requesting Agency: World Bank

9. Executing Agency: Government of Moldova (Ministry of Environment, Construction and Territorial Development and Ministry of Agriculture)

10. Duration: 5 years

**B****F****D****P**

<b>Output</b>	<b>Activities</b>	<b>Estimated Cost (US\$)</b>

## PROJECT STRUCTURE

### 11. Project objective:

The overall objective of the Agricultural Pollution Control Project (APCP) is to reduce nutrient (N&P) pollution from agricultural sources in Moldova to the Danube River and Black Sea. In support of this objective, the project will assist the Government of Moldova to: (i) promote the adoption of environmentally-friendly practices in crop and livestock production and in rural agro-industries that contribute to nutrient pollution, including wetland and integrated watershed management; (ii) strengthen national policy, regulatory and institutional capacity for agricultural nutrient pollution control; and (iii) promote a broad public awareness program and replication strategy.

These activities are directly linked to the "Strategic Action Plan for the Protection and Rehabilitation of the Black Sea" (BSSAP), formulated with the assistance of the Global Environment Facility (GEF). BSSAP has identified non-point sources of agricultural nutrient pollution as the most serious problem facing the Black Sea. By improving agricultural practices through relatively low cost investments and changes in consumption patterns, the Project would assist the Government of Moldova in mainstreaming environmental concerns in agricultural practices. It would also allow the government to meet its international obligations under, *inter alia*, the Convention on Cooperation for the Protection and Sustainable Use of the Danube River, Convention on Protection and Use of Transboundary Water Courses and International Lakes as well as harmonize its national environmental legislation with relevant European Union Directives.

A PDF Block B is requested to fund (i) a baseline survey, that would systematically describe, detail and synthesize key sector information and provide the background data needed for the design of the project and (ii) national/local capacity building with the participation of all key stakeholders for (a) designing and developing the project components and activities; (b) implementation of the project.

### 12. Global significance:

Over the past three decades, the Black Sea has experienced significant losses in aquatic biodiversity, fisheries, public health and tourism due, in part, to eutrophication caused by extensive flows of nutrients (nitrogen and phosphorus) from point (industrial and municipal wastewater) and non-point (agricultural) sources. Background diagnostic analyses have identified upstream Danube riparian countries, Bulgaria, Romania, Ukraine, Turkey and Russia as the most significant nutrient pollutants. Nutrient flows into the Black Sea and its tributaries decreased in the 1990s, mainly due to the economic downturn in the transition countries, but are expected to increase in the near future as a result of increased industrial activities and renewed intensification of agriculture.

Since agriculture is an important sector of Moldova's economy and the entire territory of Moldova lies in the Black Sea basin, Moldova is a contributor of nutrient pollution to the Black Sea. About 34% of the country drains into the Prut River, a tributary of the Danube; approximately 60% into the Nistru (Dneister) River; and the rest into a series of small rivers that empty directly into the Black Sea. Nutrient run-off in the country stems from: (i) environmentally unsustainable crop and soil management practices; (ii) over-exploitation and illegal cutting of forests, leading to the destruction of forest belts and buffer strips; (iii) inappropriate management, storage and disposal of animal manure and waste; (iv) over-grazing; and (v) mismanagement of wetlands. Soil erosion washes away an estimated 10 million tons of fertile soil annually. From the Prut River basin alone, approximately 12.5 thousand tons of nitrogen and 1.5-2.0 thousand tons of phosphorus are being discharged each year. Annual run-off from manure is estimated at 10.5 thousand tones for nitrogen and 2.5 thousand tones for phosphorus (Nutrient Balancer for Prut River Basin Project, 1994).

Reduction of nutrient run-off into the Danube river and Black Sea is an integral part of Moldova's environmental strategy and has been identified as a priority under the National Environment Action Plan which includes a program of activities to reduce or prevent pollution through better environmental management and sustainable use of natural resources.

### 13. Background:

For over five decades, Moldova was part of the former Soviet Union, with an economy based on agriculture (75% of the land was devoted to agriculture) and food processing. The land was organized into large collective agricultural enterprises and farms. Unsustainable land use, excessive application of inputs, such as fertilizers, and use of heavy machinery resulted in severe degradation of the land and environment (notably soil, water and biodiversity). Large cattle, pig and poultry farms were established near rivers that lacked efficient manure management practices. The discharge of untreated animal waste and manure is, in fact, one of the major pollutants of Moldova's surface and ground water. Furthermore, most wetlands in the river basins were drained for crop cultivation which soon turned into degraded, uncultivable land.

Since independence, Moldova's agricultural sector has undergone significant structural changes. Former collective enterprises and farms have been reorganized into smaller farming associations and private farms. However, the new farmers and owners lack farming experience, technical skills and financial resources for sustainable farm management. The absence of on-farm environmental management is exacerbating the erosion process as well as nutrient runoff into the country's waterbodies. The large cattle, pig and poultry farms have been mostly dismantled, and the majority of livestock is now kept privately in small and medium holdings. However, the continued lack of efficient manure management practices is having significant implications for groundwater pollution and drinking water supply for rural settlements in Moldova. Agricultural pollution, together with over-fishing, mismanagement of game sources, poaching, draining of wetlands, excessive tree cutting have also led to the degradation of biodiversity, which has reached a severe level in the Lower Prut River Basin. Hydropower stations built upstream have exacerbated the problem by changing the site conditions in the area. Native flora and fauna species are severely threatened and, in some cases, facing extinction.

Agricultural pollution control and wetland ecosystem protection are considered priorities by the Government of Moldova as documented in the following: (i) National Program of Strategic Actions for the Environmental Protection for 1995-2020 (1995); (ii) National Environmental Action Plan for 1996-1998 (1996), which included a program of activities to reduce or prevent pollution through better environmental management and sustainable use of natural resources; (iii) Governmental Strategy of Sustainable Development of the Republic of Moldova (2000) which emphasized sound agricultural practices, restoration and rational use of natural resources, elimination of pollution sources, water quality control, and waste management as national priorities, and (iv) Biodiversity Conservation Strategy and Action Plan (2001). Moldova has also committed itself internationally to reducing nutrient loads to the Danube River and the Black Sea from its territory. It is a signatory to the Convention on Co-operation for the Protection and Sustainable Use of the Danube River (Sofia, 1994) and a member of the International Commission for the Protection of the Danube River (Danube Commission). Moldova has also signed a number of international conventions on environmental protection and biodiversity conservation, including the Convention on Protection and Use of Transboundary Water Courses and International Lakes (Helsinki, 1992), the Convention on Wetlands of International Importance especially as a habitat of aquatic birds (Ramsar, 1971), etc.

#### 14. Project description: including implementation arrangements

The project would be blended with the IDA credit-financed Rural Investment and Services Project (RISP) that is currently at an advanced stage of preparation and scheduled for appraisal in early FY02. RISP is being prepared by the Ministry of Agriculture for a US\$30 million IDA credit. It will provide post privatization support to increase rural incomes and living standards by promoting rural entrepreneurship, agricultural production, economic diversification, and trade in the rural areas. APCP is proposed to become a GEF-funded environmental component in the RISP with the objective of mainstreaming environmental considerations into agricultural practices. Under APCP, grants would be given to those enterprises/entrepreneurs whose activities under RISP lend themselves to environmental concerns; specifically, activities that would reduce nutrient loads to the Danube River and Black Sea. In addition, some activities relevant to nutrient reduction, even if they are not financed by RISP, may be considered for support.

The following four components are envisaged under the project:

**Component 1. Promotion of environmentally-friendly agricultural practices.** This component would promote the adoption of environmentally-friendly agricultural practices. Activities under this component may include crop rotation, conservation tillage, efficient manure management practices, promotion of organic farming, nutrient management, buffer strips along rivers, and soil and water quality monitoring. Lessons learned from similar projects in Romania, Georgia, Bulgaria and Turkey will be applied and the specific project activities under this component will be identified during project preparation. Farmers would be offered training in these techniques. Entrepreneurs/enterprises who borrow under RISP (individual farmers, farmers organizations and co-operatives and agricultural processors) and wish to invest in these practices using RISP credit line, could receive a grant from the GEF fund to offset the incremental cost of nutrient reduction investments. The mechanism for APCP support, including screening for eligibility, would be developed during preparation. Only those activities under RISP that lend themselves to environmental concerns will be eligible for grant funds. In addition, some activities relevant to nutrient reduction, although not financed by RISP, will be considered for support. This component would also prepare and implement a wetland and integrated watershed management plan for one of the tributaries of the Prut River in the Lower Prut Basin with the objective of reducing nutrient loads into the Prut River through nutrient filtration and reduction of the erosion of nutrient containing soil, as well as biodiversity conservation.

**Component 2. Strengthening National Policy, Regulatory and Institutional Capacity.** This component would focus on strengthening the national legislative, regulatory and institutional capacity of the government of Moldova for meeting European Union standards in agricultural pollution control. It would include assistance to the Moldovan Government, notably the Ministries of Agriculture and Environment, in harmonising local and national legislation with EU's directives on environmental pollution control, including the Nitrates Directive (91/676/EEC) and Dangerous Substances Directive (76/464/EEC). A Code of Good Agricultural Practices would be developed based on codes developed for Europe and elsewhere. Activities under this component would increase capacity of the government for addressing agricultural pollution control measures and honouring its international commitments to reduce pollution to the Danube River and Black Sea.

**Component 3. Public Awareness Activities and Replication Strategy.** A broad local and nationwide public information campaign will be undertaken to disseminate the benefits of proposed project activities and achieve replicability of the same. At the local level, the main audience will be the direct stakeholders of the project (local and county officials, farmers, community groups and NGOs). The objective of the activity will be to familiarize the population and help induce the behavioral changes necessary to the success of the project (soil erosion prevention, use of manure management practices, respecting the Code of Good Agricultural Practices, etc.). The efforts at national level would concentrate on institutions and groups (Government agencies, national environmental or professional associations, academia, NGOs, etc.) and the population at large that may develop and build a general good-will for the project and its benefits, and raise the interest of potential future clients.

The project will provide for the organization of national and regional workshops, field trips, visits, training, publication in international agriculture and environmental journals and other activities to promote replication of project activities in other similar areas of Moldova as well as Black Sea riparian countries. The project will work closely with ongoing similar efforts in Georgia, Bulgaria, and Turkey. Through the exchange of ideas and application of lessons learned from the experiences of other Black Sea riparian countries, the proposed project will help in contributing significant reductions in the nutrient loads entering the Danube River and Black Sea from agricultural sources in Moldova.

**Component 4. Project Management Unit.** A Project Management Unit is being established under RISP. The GEF component would provide support for hiring relevant staff to implement APCP activities under the overall umbrella of the RISP PIU.

Project preparatory activities will be undertaken with full involvement and participation of all beneficiaries and stakeholders, including, individual farmers, farmer organizations, cooperatives, rural entrepreneurs, NGOs, academic institutions, and local and national level government agencies. Extensive consultative meetings will be held during preparation and the input of these groups will be instrumental in developing the design and implementation plan of the project. A baseline survey will be undertaken to identify the relevant needs and priorities of the stakeholders and information obtained from the participating groups will determine project development.

Project Monitoring and Evaluation (M&E) will be based on the baseline survey undertaken during preparation. Information collected will provide baseline data for soil and water quality levels. Targeted annual performance and monitoring indicators will be developed and annual surveys will be conducted to monitor and evaluate project performance. The results of the surveys will be measured against the baseline data to gauge effectiveness of project measures in reducing nutrient loads to the Danube and Black Sea. The results of M&E activities will be fed back into the implementation process as improved practices.

**Implementation arrangements:** APCP and RISP would be managed jointly by a Project Implementation Unit (PIU) based in Chishinau. The Ministry of Environment, Construction and Territorial Development along with the Ministry of Agriculture, Ministry of Finance and other relevant agencies, would be represented in the Project Supervisory Board to provide guidance and assistance to the PIU. The GEF component will provide support for hiring relevant staff and other related expenses for the implementation of APCP activities under the overall umbrella of the RISP PIU.

#### 15. Description of proposed PDF activities

A PDF Block B is requested to fund the following:

Baseline/Socio-economic Surveys are required to collect and analyze baseline information. These include soil and water analyses, verifying current types of farm enterprises and farming systems; land-use patterns; livestock production systems, assessment of farms and land that could benefit from project interventions; soliciting beneficiaries' inputs; identifying communities for demonstration purposes. In addition, baseline surveys need to be undertaken on socio-economic aspects, institutional arrangements, farming practices and costs, existing services and inputs (machinery, seeds, fertilizers and weed/pest control chemicals), farm product prices and markets, flora and fauna of the different land-use types (bio-diversity status), agricultural practices, environmental conditions, incentives for adopting alternate land use practices, and potential for off-farm incomes. In addition, the preparation team will need to develop financial management plans, including financial capacity assessment, social assessment plan and stakeholder participation, environmental assessment, including environmental management plan and operational manual as well as incremental cost analysis. Such information is required to develop the design and phasing of the project as well as to monitor the project's impact.

**Capacity building and Participatory Approach to Development of Detailed Project Design and Project Implementation Plan.** It is important to involve the Moldova preparatory team together with local officials, service providers and farmers in developing the project components and detailed implementation plan. Consultative meetings need to be held with farmers, NGO's and local officials to obtain their inputs and incorporate them into the design of the project and its implementation. This would include identifying specific activities supported by the project, investment needs and drawing up terms of reference (TORs) for major contracts. PDF-B funds are critical to build national capacity for developing project design and its implementation, monitoring and evaluation after project effectiveness. Training of personnel will be provided at both the local and national level to implement the project. Also PDF funds are requested for setting up a project preparation unit and for initial training in public awareness techniques, and other areas identified by the project preparation team.

16. PDF Block B Outputs:

Identification of project site – hotspots of nutrient pollution to the Danube River and Black Sea  
Detailed Project activities and associated costs  
Baseline data against which project will be monitored during implementation  
Social and Environmental Assessment, including Environmental Management Plan  
Participation Plan – mechanisms for consultation and coordination; local participation  
Institutional arrangements for project implementation  
Project Implementation Plan  
Operational Manual for detailed Project Implementation  
Incremental Cost analysis  
COSTAB  
GEF Project Document for Council Submission

17. Eligibility

The project's objective of reducing non-point sources of pollution from agriculture is consistent with GEF Operational Program Number 8, "Waterbody Based Operational Program", which focuses mainly on seriously threatened water-bodies and the most important trans-boundary threats to their eco-systems. Under the Program, priority is accorded to projects that are aimed at "changing sectoral policies and activities responsible for the most serious root causes or needed to solve the top priority trans-boundary environmental concerns". The project is also consistent with GEF Operational Program Number 9, "Integrated Land and Water Multiple Focal Area" which supports "more comprehensive approaches for restoring and protecting the international waters environment".

The proposed project would help reduce barriers to farmers' adoption of environmentally-friendly agricultural practices and would also help restore the wetland ecosystem and its biological diversity in the "Lower Prut Lakes", a Ramsar Site. The project would provide an opportunity for the GEF to be a catalyst for actions to bring about the successful integration of land and water resource management practices. Without GEF assistance, Moldova might undertake a series of small ad hoc activities in different parts of the country to address the pollution problem and in response to EU requirements for environmental concerns in agriculture. However, this approach would lack a comprehensive inter-sectoral mechanism to coordinate the financing, program efforts and geographical targeting of activities. GEF funding would provide essential resources to accelerate the program, to demonstrate the need for a holistic approach to control nutrient loads into the Black Sea and to undertake a public outreach program for the project's success. The APCP would strive to build synergies between this project, RISP as well as other projects with similar objectives.

#### 18. National level support

Agricultural pollution control and wetland ecosystem protection are considered priorities by the Government of Moldova as documented in the following: (i) National Program of Strategic Actions for the Environmental Protection for 1995-2020 (1995); (ii) National Environmental Action Plan for 1996-1998 (1996), which included a program of activities to reduce or prevent pollution through better environmental management and sustainable use of natural resources; (iii) Governmental Strategy of Sustainable Development of the Republic of Moldova (2000) which emphasized sound agricultural practices, restoration and rational use of natural resources, elimination of pollution sources, water quality control, and waste management as national priorities, and (iv) Biodiversity Conservation Strategy and Action Plan (2001). Moldova has also committed itself internationally to reducing nutrient loads to the Danube River and the Black Sea from its territory. For example, it is a member of the International Commission for the Protection of the Danube River (Danube Commission) and a signatory to a number of conventions, including the Convention on Co-operation for the Protection and Sustainable Use of the Danube River (Sofia, 1994), Convention on Protection and Use of Transboundary Water Courses and International Lakes (Helsinki, 1992), and the Convention on Wetlands of International Importance especially as a habitat of aquatic birds (Ramsar, 1971).

The Government of Moldova has requested the World Bank assistance in its efforts to promote the adoption of environmentally-friendly agricultural practices by farmers in Moldova and in the process of harmonizing the national environmental legislation with EU directives. The Bank has received a formal letter of request from the Government requesting GEF assistance for the preparation of the proposed project.

#### 19. Justification

The Project will implement priority actions identified in the Black Sea Strategic Action Plan supported by GEF. By improving agricultural practices, through relatively low cost investments, changes in consumer practices and by implementing a wetland and integrated watershed management plan, the Project would assist the Government in meeting its international obligations to reduce discharge of nutrients to the Black Sea as well as moving towards meeting the European Union Directives. In support of the objective, the Project would assist the Government of Moldova in encouraging farmers to adopt environmentally friendly agricultural practices which, while reducing the discharge of organic matter, will yield substantial benefits in terms of improved quality of Moldovan surface and ground waters and the Black Sea, improved quality of agricultural products and its competitiveness in Moldovan and Western European markets as well as improvement in the quality of rural communities.



## 20. Timetable

It is expected that project preparation will be completed by September 2003 .

### Budget:

The estimated costs are as follows:

**GEF PDF-B Grant  
Government of Moldova  
Total**

#### Consultancy Services (local and international)

\$180,000  
\$40,000  
\$220,000

1. Detailed baseline survey of the project area. Social assessment; stakeholder consultation; and development of public participation plan, and environmental and socio-economic monitoring plan

\$60,000  
\$15,000  
\$75,000

2. Identification of project area & development of project components and activities; incremental cost analysis; COSTAB; development of project implementation plan

\$60,000  
\$8,000  
\$68,000

3. Local and national training for undertaking project activities, including public awareness activities to disseminate project benefits, and international study visits /workshops /seminars to promote replication of project activities in other riparian countries

\$60,000  
\$7,000  
\$67,000

#### Goods

(facilities and equipment, including vehicles, computers, office supplies, office furniture, etc.)

\$50,000  
\$5,000  
\$55,000

#### Operating Costs

(recurrent expenditures incurred by Project Preparation Unit to coordinate project preparation activities, including travel to project sites, per diem expenses, fuel, driver, vehicle maintenance, translations, communications (e-mail, telephone, fax), utilities (power, water, sanitation), project assistant, office refurbishment (painting, renting office furniture, electrical fittings) and office supplies.

\$70,000  
\$5,000  
\$75,000

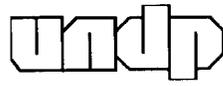
#### Total

**\$300,000**  
**\$40,000**  
**\$340,000**

#### TOTAL

**GEF : US\$300,000**

**Government: US\$40,000**



THE WORLD BANK