

## FACSIMILE TRANSMISSION



**United Nations Development Programme**  
GLOBAL ENVIRONMENT FACILITY (GEF)



**To:** Mr. Kenneth King  
Assistant Chief Executive Officer  
GEF Secretariat

**Date:** 25 June 1998

Mr. Lars Vidaeus, Chief  
Global Environment Div.  
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**From:** Eduardo Fuentes  
Officer-in-Charge

**Subject:** PDF A Funding - In-Situ Conservation of Kazakhstan's Mountain Agrobiodiversity; and Fiji: Renewable Energy Hybrid Village Power Systems

Please find attached for your review two PDF Block A requests for funding entitled *In-Situ Conservation of Kazakhstan's Mountain Agrobiodiversity; and Fiji: Renewable Energy Hybrid Village Power Systems*.

We would appreciate receiving your comments no later than c.o.b. Thursday 2 July 1998.

Thank you.

PM

UNDP-GEF Project Development Facility  
"Block A" Request

Part I: Eligibility

1. Project Name: In-situ Conservation of Kazakhstan's Mountain Agrobiodiversity
2. GEF Implementing Agency: United Nations Development Programme
3. Country in which the project is being implemented: Republic of Kazakhstan
4. Country Eligibility: Kazakhstan ratified the CBD in 1994
5. GEF focal areas/and or cross-cutting issues: Biodiversity
6. Operational Program: Mountain Ecosystems

7. Project Linkage to national priorities, action plan, and programmes:

The Republic of Kazakhstan occupies a diverse landscape three times the size of Turkey. The attendant variation in soils and climate and biogeographical diversity, has made Kazakhstan a globally important harbinger of agrobiodiversity.

Mountain agrobiodiversity is especially significant in Kazakhstan. The great Russian plant explorer and geneticist N. Vavilov considered Kazakhstan the center of origin for the cultivated apple and described a full range of morphological variation in the apple forests here (Vavilov, 1987; Hokanson et.al. 1997).<sup>1</sup> This globally significant agrobiodiversity would be the focus of a full GEF project to be developed under the PDF pathway. The cultivated apple is a complex hybrid of several *Malus* species, with *Malus sieversii* the predominant species. To date, three species of *Malus* have been described from this region of Kazakhstan: *Malus sieversii*, *M. kirghisorum* and *M. niedzwetzkyana*. These species occur throughout the mountain range in different morphological variations as determined by micro-climate and soil type. This diversity achieves its greatest diversity in Kazakhstan near the city of Almaty (formerly called Alma Ata, or "Father of the Apples").

In addition to the globally unique apple diversity found here, other agrobiodiversity species of global significance occur in the same mountain forest ecosystem. Wild relatives of domestic tulip species are especially diverse here, with over 32 species, 10 of which are endemic. Twenty genera are represented here by a total of 55 species of nuts and other fruits, including apricots and walnuts. Thirty-six species of wild relatives of domesticated vegetables occur here. Many of the 70 species of forage crops representing 29 genera occur in mountain ecosystems here.<sup>2</sup>

<sup>1</sup> "Wild Kazakhstan apples are mostly represented by large-fruited varieties approximating cultivated apples, which makes them different from Caucasian ones with small fruits. Some of the wild forms were so good regarding both fruit taste and size that they might be merely removed to an orchard" (Vavilov, N.I. 1987 Five continents (in Russian), Mysl Publications, Moscow).

Hokanson, S.C. et. al. 1997 "Collecting and Managing Wild *Malus* Germplasm in its Center of Diversity" HortScience 32(2), pp. 173-176.

<sup>2</sup> Country Report to the FAO International Technical Conference on Plant Genetic Resources, Leipzig, 1996.

National Priorities:

Kazakhstan clearly recognizes the importance of its mountain agrobiodiversity. The President of Kazakhstan declared the sustainable conservation and development of forest ecosystems as a key component of Kazakhstan's long-term strategy for the year 2030. Ili-Alatau National Park was recently established in part due to the wild apple, apricot, and nut forests resident there. Recently, the conservation of plant genetic resources was expressed as a priority in Kazakhstan's report to the FAO's Plant Genetic Resources Conference in Leipzig.

The Government of Kazakhstan is nearing completion of its GEF-supported national biodiversity strategy and action plan. One of the seven priority ecosystems identified by this strategy is the wild fruit forest. The Forest Code of Kazakhstan gives specific importance to plant genetic resource protection, regeneration and sustainable utilisation. Based upon this, the Government of Kazakhstan recently approved a Ministry-Academy of Science program for the sustainable conservation and rational utilization of mountain plant biodiversity.

Additionally, the Conference of Parties-3 for the CBD recommended specific measures related to agrobiodiversity, many of which are addressed or will be addressed by this project initiative. Secondly, the Consultative Group on International Agricultural Research (CGIAR) has targeted genetic resource conservation in the former Soviet Union as a priority. Within the former Soviet Union, Kazakhstan's agrobiodiversity is certainly prominent. And thirdly, this PDF incorporates the main *in-situ* elements of FAO's Global Plan of Action for the Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture, which Kazakhstan has played a role in developing.

## 8. GEF national operational focal point and date of endorsement:

Minister of Ecology and Natural Resources, S. Daukeev, 28 May, 1998 (see Annex 1 for endorsement)

## 9. Project Rationale and Objectives:

In many countries, farmers have practised and continue to practice *de facto* conservation of agrobiodiversity by applying traditional knowledge to the maintenance of traditional varieties. In Kazakhstan, such practice was almost entirely diminished during the Soviet period. *Ex-situ* conservation was emphasised instead. In recent years, agrobiodiversity conservation and utilization measures have not kept pace with the free-market style agricultural and land-use reforms and this has been cause for further marginalization and neglect of Kazakhstan's agrobiodiversity.

Kazakhstan's *ex-situ* conservation programmes (botanical gardens/seed banks) can be supported by the government only at the most minimum levels. Consequently, with *ex-situ* conservation programmes barely operational and no organized *in-situ* conservation effort underway, there is no active program to conserve and utilize Kazakhstan's globally significant agrobiodiversity. In the resulting agrobiodiversity conservation "vacuum," the chance of losing local varieties and their wild relatives in Kazakhstan is great. An *in-situ* public-private partnership conservation program is Kazakhstan's best hope of conserving its wild crop relatives and traditional crop varieties on a sustainable basis.

The primary threats to mountain agrobiodiversity include:

1. destruction through unsustainable land-use practices: a) overgrazing, including use of fire to stimulate grass growth; b) cutting of fruit and nut forests; c) housing development d) gravel mining
2. inappropriate concurrent land-use (haymaking, vegetable cultivation)
3. genetic erosion
4. decline of apple agricultural industry

The root causes of the decline of Kazakhstan's agrobiodiversity resources include the following:

1. lack of effective management of priority protected areas and habitats; unfamiliarity with new management practices; lack of staff trained in agrobiodiversity management methodologies; lack of reliable funding mechanism for protected area management;
2. lack of community involvement in conservation measures
3. lack of experience with information on viable farming practices and technologies that can improve conservation of agrobiodiversity; lack of integrated formal/traditional approach to *in-situ* conservation; the existence of regulatory and control gaps in the governmental policy framework
4. lack of sufficient legislation to protect intellectual property rights; lack of constructive involvement of the private sector; lack of incentives for farming systems that enhance agrobiodiversity; absence of marketing expertise to increase apple exports and encourage sustainable use of traditional varieties.

It is envisioned this project will take an incremental cost approach to developing an integrated, *in-situ* conservation and sustainable use approach to address the threats to agrobiodiversity.

The project will focus on the development of a public-private partnership in order to build a sustainable, *in-situ* conservation and utilization programme for Kazakhstan's mountain agrobiodiversity. The full project will combine *in-situ* conservation of crop wild relatives by strengthening management of protected areas and priority habitats with the strengthening of conservation within agricultural systems through developing markets for traditional varieties and farmer extension work on traditional variety management. The private agricultural industry will be viewed as a source of support for sustainable management of agrobiodiversity resources and innovative linkages between the two will be explored. See sections 10 and 11 for more details.

#### 10. Expected Outcome:

A viable, integrated management and sustainable development programme for *in-situ* conservation of Kazakhstan's mountain agrobiodiversity resources. This will take the quantifiable form of:

- 1) the conservation of crop wild relatives in a strengthened system of priority agrobiodiversity protected areas and habitats;
- 2) a sustainable, low-input cooperative network of academics, NGOs, farmers, and dacha gardeners to recognize and conserve the valuable traditional crop varieties (known as "aborigennye" in Kazakhstan) of key agrobiodiversity species;
- 3) a strengthened law and policy framework to enable Kazakhstan to sustainably conserve and yet equitably utilise agrobiodiversity;
- 4) an innovative linkage between the private agricultural sector and the public conservation sector to ensure that Kazakhstan derives benefits from its agrobiodiversity resources and that

some of those benefits are re-invested in the *in-situ* sustainable conservation of the genetic resource.

- 5) a long-term funding mechanism.

#### 11. Planned Activities to Achieve Outcomes:

- 1) Management of Strengthened Protected Areas: development and implementation of innovative management plans for priority protected areas and habitats; targeted research to identify priority habitats (e.g. intact fruit forests); development of long-term monitoring programmes; define baseline situation for biodiversity management and monitoring; demarcation; training.
- 2) Development of Laws and Policies: training, capacity building, and assistance to legislative development.
- 3) Development of Cross-sectoral Agrobiodiversity Agriculture Extension Program.
- 4) Removal of market-related barriers to sustainable conservation/utilization of agrobiodiversity resources; the introduction of new conceptual and technological tools for conservation-based development in Kazakhstan; introduction of new technologies; training/capacity building; development and demonstration of sustainable-use methodologies;
- 5) development and funding of long-term funding mechanism; development of public and stakeholder awareness programmes linking the conservation of agrobiodiversity with sustainable development.

#### 12. Stakeholders involved in Project:

Government: the Agency for Strategic Planning and Reforms, Ministry of Agriculture, State Committee on Forests, National Academy of Sciences, Research Center for Plant Genetic Resources, Institute of Microbiology and Virology, Ministry of Science Agricultural Research Centre, Forest Tree Breeding and Seed Center/Network

NGO/Int'l Organizations: Kazakhstan: ACCA, KORYK, Kazak Farmers Association, the Coordination Council of the Plant and Animal Genetic Fund; International: WWF, IUCN, IPGRI (WANA), FAO

Private Sector: Alma Ata Ltd. Apple Company, the international tulip industry, the international apple industry; Genetic Fund of Plants, Ltd.

**Part II: Information on Block A PDF Activities****13. Activities to be Funded by GEF:**

- Prepare for and organize stakeholder consultation in Kazakhstan - information gathering, planning.
- Conduct stakeholder consultations (including co-funders such as donor representatives, the oil, tourism, and fishing industries), to finalize agreement on basic approach for conservation action in Kazakhstan.
- Draft Block B proposal for development of full project document

**14. Expected Outputs and Completion Dates:**

The expected outcome of this Block A is a proposal for Block B funding to finalize a full project proposal for GEF and co-financing support for biodiversity conservation in Kazakhstan. More specifically:

- preparatory consultations with national and regional administration and local stakeholders in Kazakhstan (completed July 1998)
- Block A consultation/agreement on priority components of Block B/preliminary analysis of Incremental Cost Analysis (completed September 1998)
- Draft Block B proposal for development of full project document (approved November 1998)

**15. Other Possible Contributors/Donors and Amounts**

UNDP-Kazakhstan, Government of Kazakhstan, (Private agricultural interests at the Block B level).

**16. Total budget and information on how costs will be met.**

	<u>GEF</u>	<u>Co-funding *</u>
• Review of national and local policies and plans for Kazakhstan and related sectors/Preparation of consultation	3,000	
• Stakeholder consultations (incl. co-funders) Transportation/Mtng Facilities Int'l Agrobiodiversity Expert (2 wks travel, DSA, fees) <sup>3</sup>	12,500	2,000
• Coordination and preparation of Block B proposal GEF expert input (2 weeks, travel, DSA, fees)	6,500	
<b><u>Total Request to GEF:</u></b>	<b><u>22,000</u></b>	

\*UNDP-Kazakhstan, Government of Kazakhstan (in-kind transportation costs)

**17. Project Identification Number:**

18. IA Contact Person: David Vousden, UNDP/RBEC-GEF. Tel: 212-906-6402

**19. Project Linkage to GEF & IA's programme(s):**

The full project will complement UNDP-Kazakhstan Country Cooperation Framework, which is comprised of three components: 1) Social Development including development of income generating activities, small and medium-size enterprise development and working with women; 2) Improving Governance, and 3) Environment and Sustainable Development. A possible GEF

<sup>3</sup> There is a chance that a staff member from IPGRI/CARDA can provide this input, reducing the cost to DSA and travel.

project would have many of the same elements built into it and thus the opportunities for co-funding and collaboration are promising.

The approach to be developed under this and a future PDF B will be consistent with the guidance developed by GEF for agrobiodiversity interventions, not to mention FAO's Global Plan of Action for The Conservation and Sustainable Utilization of Plant Genetic Resources for Food and Agriculture. The World Bank is currently developing a regional Western Tien Shan Mountains biodiversity project. The project to be developed under this PDF will be primarily concerned with the eastern and northern part of the Tien Shan mountains. But in any case, this Block A effort will coordinate and share information with the regional initiative.

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РЕСУРСТАР МИНИСТРЛІГІ

РЕСПУБЛИКА КАЗАХСТАН

МИНИСТЕРСТВО ЭКОЛОГИИ  
И ПРИРОДНЫХ РЕСУРСОВ

№ \_\_\_\_\_

Дата \_\_\_\_\_

28 MAY 1998

Mr. David Vonsden

I would like to express my gratitude for your continuous support and assistance to the environment problems in Kazakhstan and for the funds allocated to Kazakhstan from the GEF with your help as the GEF Regional Coordinator.

In regard with the National Strategy "Ecology and Natural Resources" which is a segment of the long-term Kazakhstan Development 2030 Strategy approved by the President of Kazakhstan, the Ministry would like to request the GEF support for three projects.

1. PDI B Conservation of Priority Globally Significant Wetlands Integrated in Kazakhstan.
2. PDI A In-situ Conservation of the Kazakhstan's Mountain Agrobiodiversity.
3. PDI A Capacity Building to Reduce Key Barriers to Energy Efficiency in Heat and Hot Water Supply in Kazakhstan.

We have thoroughly analysed the proposed GEF projects and concluded that these project proposals, discussed with you, coincide with the priorities of the Kazakhstan Development 2030 Strategy.

As National GEF Operational Focal Point for Kazakhstan, I am pleased to give my full support to the projects and request GEF support for preparation and implementation of the projects.

Submitting to GEF these projects I would like to request their approval and funding support.

I wish to take this opportunity to thank you for your assistance with the preparatory stages of these proposals and I look forward to further collaboration with GEF on these and other projects.

Best regards,



Serikbek Daukeev  
Minister of Ecology and Natural Resources  
Republic of Kazakhstan

Mr. David Vonsden  
GEF Regional Coordinator  
UNDP-RBEC, NY, USA