

Document of
The World Bank

Report No: ICR00001720

IMPLEMENTATION COMPLETION AND RESULTS REPORT
(TF-52161)

ON A

GLOBAL ENVIRONMENT FACILITY GRANT

IN THE AMOUNT OF US\$ 5.27 MILLION

TO THE

REPUBLIC OF KAZAKHSTAN

FOR A

DRYLANDS MANAGEMENT PROJECT

November 2, 2010

Sustainable Development Department
Central Asia Country Management Unit
Europe and Central Asia Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective September 28, 2010)

Currency Unit = Tenge

Tenge 1 = US\$0.0068

US\$1 = Tenge 147

FISCAL YEAR

July 1 – June 30

ABBREVIATIONS AND ACRONYMS

ACP	Agricultural Competitiveness Project
CAS	Country Assistance Strategy
CCA	Chemical Control Agent
CIMMYT	International Maize and Wheat Improvement Center
CO ₂	Carbon Dioxide
DMP	Drylands Management Project
EA	Environmental Assessment
EMP	Environmental Management Plan
EPIC	Erosion Productivity Impact Calculator
GEF	Global Environment Facility
GEO	Global Environmental Objectives
GIS	Geographical Information System
GOK	Government of Kazakhstan
IBG	Institute of Botany and Geophysics
IBRD	International Bank for Reconstruction and Development
ICR	Implementation Completion and Results Report
ISR	Implementation Status and Results Report
IRR	Internal Rate of Return
JSC	National Center of Space Research and Technologies
KZT	Kazakhstan Tenge
M&E	Monitoring and Evaluation
MEP	Ministry of Environmental Protection
MOA	Ministry of Agriculture
NAP	National Action Plan
NEAP	National Environmental Action Plan
NGO	Non Governmental Organization
NPV	Net Present Value
OLZHA-9	Association of Farmers in Shetsky Rayon
OPCS	Operations Policy and Country Services
PAD	Project Appraisal Document
PDF-B	Project Development Facility Brief
PDO	Project Development Objectives

PMU	Project Management Unit
QAE	Quality at Entry
QSA	Quality of Supervision
TA	Technical Assistance
UN	United Nations
UN-CCD	United Nations Convention to Combat Desertification
UN-FCCC	United Nations Framework Convention on Climate Change
USDA	United States Department of Agriculture, Agricultural Research Service
UUU	Institute of Soil Science and Agro-Chemistry (U.U.Uspanov, Ltd.)

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KAZAKHSTAN
Drylands Management Project (DMP)

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A. Basic Information			
Country:	Kazakhstan	Project Name:	Drylands Management GEF Project
Project ID:	P071525	L/C/TF Number(s):	TF-52161
ICR Date:	11/09/2010	ICR Type:	Core ICR
Lending Instrument:	SIL	Borrower:	REPUBLIC OF KAZAKHSTAN
Original Total Commitment:	USD 5.3M	Disbursed Amount:	USD 5.3M
Revised Amount:	USD 5.3M		
Environmental Category: B		Global Focal Area: M	
Implementing Agencies: Ministry of Environmental Protection			
Cofinanciers and Other External Partners: Local Farmer Organizations			

B. Key Dates				
Process	Date	Process	Original Date	Revised / Actual Date(s)
Concept Review:	06/26/2000	Effectiveness:	03/26/2004	01/20/2004
Appraisal:	04/11/2003	Restructuring(s):		
Approval:	06/19/2003	Mid-term Review:	10/08/2006	10/19/2006
		Closing:	03/31/2009	03/31/2010

C. Ratings Summary	
C.1 Performance Rating by ICR	
Outcomes:	Satisfactory
Risk to Global Environment Outcome	Moderate
Bank Performance:	Satisfactory
Borrower Performance:	Satisfactory

C.2 Detailed Ratings of Bank and Borrower Performance			
Bank	Ratings	Borrower	Ratings
Quality at Entry:	Satisfactory	Government:	Satisfactory
Quality of Supervision:	Satisfactory	Implementing Agency/Agencies:	Satisfactory
Overall Bank Performance:	Satisfactory	Overall Borrower Performance:	Satisfactory

C.3 Quality at Entry and Implementation Performance Indicators			
Implementation Performance	Indicators	QAG Assessments (if any)	Rating
Potential Problem Project at any time (Yes/No):	No	Quality at Entry (QEA):	None
Problem Project at any time (Yes/No):	No	Quality of Supervision (QSA):	None
GEO rating before Closing/Inactive status	Satisfactory		

D. Sector and Theme Codes		
	Original	Actual
Sector Code (as % of total Bank financing)		
Animal production	20	50
Crops	30	30
General agriculture, fishing and forestry sector	50	20
Theme Code (as % of total Bank financing)		
Climate change	50	50
Land administration and management	50	50

E. Bank Staff		
Positions	At ICR	At Approval
Vice President:	Philippe H. Le Houerou	Shigeo Katsu
Country Director:	Motoo Konishi	Dennis N. de Tray
Sector Manager:	John V. Kellenberg	Marjory-Anne Bromhead
Project Team Leader:	Michael G. Carroll	Bulat Utkelov
ICR Team Leader:	Michael G. Carroll	
ICR Primary Author:	Angel Alberto Yanosky	

F. Results Framework Analysis

Global Environment Objectives (GEO) and Key Indicators(as approved)

Project Development Objectives (from Project Appraisal Document)

The development objective of the project was to demonstrate and promote sustainable land uses in the marginal dryland ecosystem of a pilot area in the Shetsky rayon (a district in the southern part of the Karaganda oblast - province). The proposed project was a pilot activity that would test the environmental, social and economic viability of shifting from the current unsustainable cereal-based production system to the traditional livestock-based production system.

To support this objective, the project - with active participation of local communities # was designed to assist the Government of Kazakhstan to: (i) develop sustainable land use systems; (ii) provide initial service support to producer groups; (iii) improve national capacity to quantify carbon sequestration; and (iv) undertake a broad public awareness campaign and develop a strategy so that project interventions could be replicated in similar areas of Kazakhstan and other Central Asian countries. By promoting sustainable land use practices, the project emphasized an integrated ecosystem management approach to achieving ecological, economic and social goals that was expected to yield benefits at a local, regional and global level.

Project Global Environmental Objectives

The project's global environmental objectives were: (i) improved knowledge on quantification and monitoring of carbon sequestration under different land use types; (ii) increased carbon sequestration for climate change mitigation; (iii) improved biodiversity; and (iv) control of land degradation.

Revised Global Environment Objectives (as approved by original approving authority) and Key Indicators and reasons/justifications

(a) GEO Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1 :	Increase of area with sustainable land use.			
Value (quantitative or Qualitative)	Project area is not in use.	30,000 ha to be re-vegetated with perennials.		A total of 35,179 ha were re-vegetated with perennials that were used mainly for hay production and winter feeding of livestock.

Date achieved	10/01/2004	10/01/2009		03/31/2010
Comments (incl. % achievement)	Indicator fully achieved. The total area rehabilitated during the project life has exceeded by 15% the amount targeted, successfully using different techniques for land use.			
Indicator 2 :	Better estimation of future carbon sequestration under different land use types.			
Value (quantitative or Qualitative)	No data on carbon sequestration in Kazakhstan dry steppe zone during last twenty five years.	The model to calculate carbon sequestration in soils for different types of agricultural use is developed and tested in and outside of the project territory.		The needed information for carbon quantification model was collected and is available. The model has been created and is prepared for replication outside of the project territory.
Date achieved	10/01/2004	10/01/2009		03/31/2010
Comments (incl. % achievement)	Indicator achieved. The model has been developed and is available to be applied in other regions of Kazakhstan outside the project territory. Pilot applications have been tested in neighboring districts.			
Indicator 3 :	Improvement of income and living standards of beneficiary population.			
Value (quantitative or Qualitative)	Villages have incurred heavy economic losses in the process of privatization in agriculture. Areas under crops have been reduced considerably, livestock has been contracted substantially.	Income and living standards of beneficiary population are improved.		Total income in 20 farms selected for monitoring was around US\$ 100,000 (KZT 14,748,100) in 2005. While in 2008 it has increased to around US\$ 450,000 (KZT 66,494,550). Farmers have increased their livestock number.
Date achieved	10/01/2004	10/01/2009		03/31/2010
Comments (incl. % achievement)	Indicator fully achieved. Although income increases identified by the survey may not be fully attributable to project interventions, the rates of return of main project activities suggest a direct correlation with income generation.			
Indicator 4 :	Increased biodiversity; increased sustainability of threatened species.			
Value (quantitative or Qualitative)	Some plant and animal species became extinct over the years after the Soviet Virgin Lands Campaign, some are severely endangered.	Protection of natural habitats of many endangered species by improving management of pastures and		Scientific research, conducted in project area, proved environmental rationale for use of wheatgrass for restoration of fields

		rangelands.		and biodiversity.
Date achieved	10/01/2004	10/01/2009		03/31/2010
Comments (incl. % achievement)	Research carried out by the project has demonstrated that the management of lands and better land use practices contributed to conserve and improve local biodiversity of key steppe vegetational communities.			
Indicator 5 :	Reduced soil erosion.			
Value (quantitative or Qualitative)	Cereal-based production system with annual plowing underpins continuous soil wind and water erosion	Land erosion is controlled and minimized by shifting from cereals to sustainable land use for mainly animal husbandry.		Total area of the Shetsky Rayon used for production of cereals in year 1993 was 148,800 ha. In 2008 the grain area had been reduced to 21,600 ha.
Date achieved	10/01/2004	10/01/2009		03/31/2010
Comments (incl. % achievement)	Dramatic reduction in cultivated area was achieved. No target was established at appraisal; no percentage of achievement can be reported.			

(b) Intermediate Outcome Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1 :	Re-vegetation of abandoned cereal land on 30,000 ha.			
Value (quantitative or Qualitative)	The project area is a territory of abandoned lands.	Re-vegetation of abandoned lands on 30,000 ha.		Total area of abandoned lands planted with perennial grasses is 34,488 ha, which exceeds the target figure.
Date achieved	10/01/2004	10/01/2009		03/31/2010
Comments (incl. % achievement)	A 114.9% increase in use of abandoned lands in project area with practices of re-vegetation. These practices were successfully tested and implemented.			
Indicator 2 :	Reduced grazing pressures, increased vegetative cover and other techniques to improve management of degraded pastures and rangelands on 50,000 ha.			
Value (quantitative or Qualitative)	Domestic animals are grazed around villages.	50,000 ha of degraded pastures and rangelands are improved and used for grazing remotely from settlements.		100,000 ha of degraded pastures and rangelands are improved and used for grazing remotely from settlements.
Date achieved	10/01/2004	10/01/2009		03/31/2010

Comments (incl. % achievement)	Achievement of 200%. The set-up of water points in remote areas has contributed to the establishment of summer grazing facilities.			
Indicator 3 :	Provision of 40 water points.			
Value (quantitative or Qualitative)	No water points used remotely in the project area.	Provision of 40 water points.	Provision of 31 water points	36 water points equipped with different types of power sources were established.
Date achieved	10/01/2004	10/01/2009	10/08/2006	03/31/2010
Comments (incl. % achievement)	This indicator was 116% achieved as 36 water points were designed, evaluated and implemented using alternative energy sources due to the remoteness of their locations. The Indicator was revised (from 40 to 31) during the Mid Term Review.			
Indicator 4 :	Increase in number of livestock.			
Value (quantitative or Qualitative)	During years of transition, privatization and restructuring of agriculture, livestock has been contracted substantially throughout the country	At least 70% increase in number of livestock (35,000 to 70,000 animal equivalents).		During three years, 2005-2008, cattle population increased by 125 %, horses increased by 100%, sheep number increased by 129.8 %.
Date achieved	10/01/2004	10/01/2009		03/31/2010
Comments (incl. % achievement)	Target surpassed in the three indicators selected (number of cattle, horses and sheep).			
Indicator 5 :	Improved access to livestock market.			
Value (quantitative or Qualitative)	Markets are located far from the villages: average distance from peasants' residence in the pilot zone to the livestock market - 126,7 km.	Improved access to livestock market.		The project provided Shetsky Rayon with its own livestock market and slaughterhouse; additionally assisted in the creation of an organization comprised of nine farmer associations.
Date achieved	10/01/2004	10/01/2009		03/31/2010
Comments (incl. % achievement)	The indicator was fully achieved			
Indicator 6 :	Demonstration of alternative land-use systems.			
Value (quantitative or Qualitative)	No demonstrations and no other extension activities in the pilot zone.	Demonstration of various methods available to plant perennial and annual grasses at		Demonstration program developed by CIMMYT assisted in shifting to sustainable land-

		the lowest cost.		use - traditional livestock particularly in testing wheatgrass. In 2001 hay was produced by 35 out of 100 farms, in 2007. The number increased to 94 out of 100.
Date achieved	10/01/2004	10/01/2009		03/31/2010
Comments (incl. % achievement)	Field demonstration were successfully implemented and used by local farmers who shared training and technical assistance.			
Indicator 7 :	Reduced recurrence of locust infestations.			
Value (quantitative or Qualitative)	Weed cover of abandoned lands is prime breeding ground for locusts.	Reduced recurrence of locust infestations by replacing weeds with cultivated wheatgrass and bushes.		Infestations reduced by progressive succession under cover of cultivated wheatgrass provided by the project which proved more effective than successions on idle or weedy fields.
Date achieved	10/01/2004	10/01/2009		03/31/2010
Comments (incl. % achievement)	There were no recorded locust infestations during project implementation.			
Indicator 8 :	New empirical data on quantity of sequestered carbon.			
Value (quantitative or Qualitative)	In accordance with Project's empirical quantification, carbon content in 50 cm layer of soil (including carbon in roots) in abandoned lands is 56.42 ton/ha (0.52 ton/ha in roots).	Maximum increase of carbon in soils.		Carbon content in 50 cm layer of soil, including carbon in plant roots of wheatgrass sown by the project was estimated at 60.66 ton/ha (0.56 ton/ha in roots).
Date achieved	10/01/2004	10/01/2009		03/31/2010
Comments (incl. % achievement)	Indicator achieved, empirical information on quantity of sequestered carbon obtained.			
Indicator 9 :	Quantity of sequestered carbon in soil			
Value (quantitative or Qualitative)	Quantity of sequestered carbon in soil of an abandoned land on project territory (without	Maximum possible increase.		Quantity of sequestered carbon in 50 cm soil layer of a project plot

	carbon from roots) is 55.90 ton/ha.			sown by wheatgrass (without carbon from roots) is 60.10 ton/ha.
Date achieved	10/01/2004	10/01/2009		03/31/2010
Comments (incl. % achievement)	Indicator achieved. Improved knowledge of carbon sequestered in soil. A soil map of the Project's territory (1:200,000) was developed on the basis of spatial and field data.			

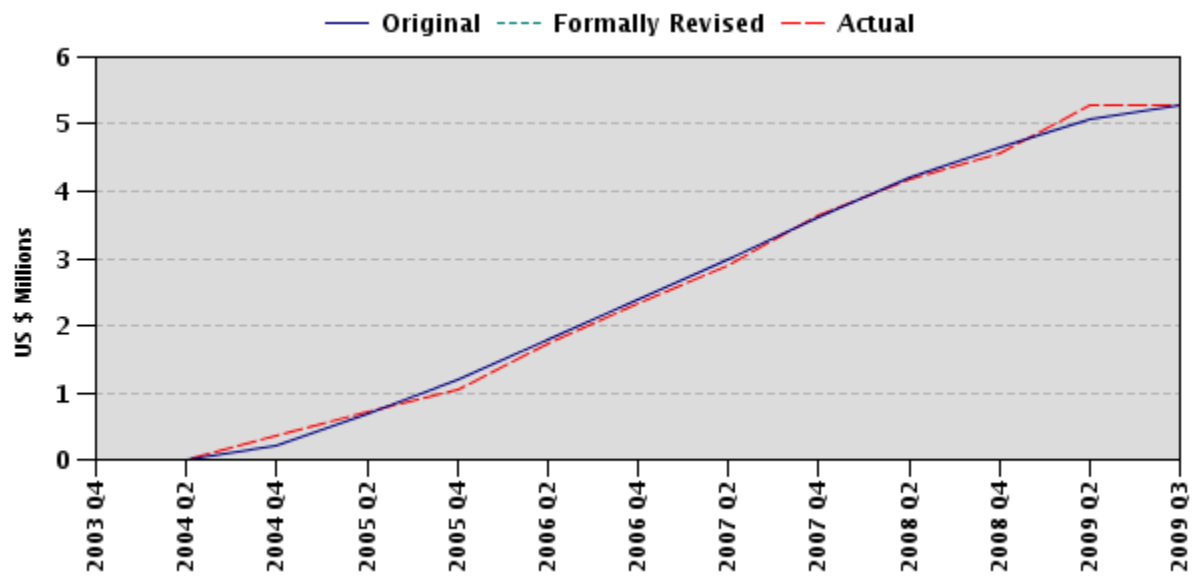
G. Ratings of Project Performance in ISRs

No.	Date ISR Archived	GEO	IP	Actual Disbursements (USD millions)
1	10/30/2003	Satisfactory	Satisfactory	0.00
2	05/06/2004	Satisfactory	Satisfactory	0.20
3	10/06/2004	Satisfactory	Satisfactory	0.53
4	05/27/2005	Satisfactory	Satisfactory	0.89
5	12/03/2005	Satisfactory	Satisfactory	1.71
6	07/27/2006	Satisfactory	Satisfactory	2.33
7	11/21/2006	Satisfactory	Satisfactory	2.57
8	10/04/2007	Satisfactory	Satisfactory	3.95
9	01/25/2008	Satisfactory	Satisfactory	4.19
10	08/29/2008	Satisfactory	Satisfactory	4.80
11	04/12/2009	Satisfactory	Satisfactory	5.27
12	11/06/2009	Satisfactory	Satisfactory	5.27
13	06/30/2010	Satisfactory	Satisfactory	5.27

H. Restructuring (if any)

Not Applicable

I. Disbursement Profile



1. Program Context, Development Objectives and Design

1.1. Context at Appraisal

1. Country and Sector Background

1. Since its independence in late 1991, the Government of Kazakhstan (GOK) has launched successive reforms in the agricultural sector aimed at halting uneconomical farming and improving productivity and corporate governance of farmers. Although GOK strengthened the Ministry of Agriculture (MOA)'s management, a significant reform agenda remained, particularly in the northern marginal lands of Kazakhstan's steppe zone where unsustainable land use was having an increasingly adverse impact on the country's agricultural output and natural resource base. The Soviet Union's Virgin Lands scheme of the 1950's, designed to expand cereal production to the steppe region of Kazakhstan, resulted in large areas of degraded land due to unsustainable cereal cultivation, severe deterioration of soil quality, reduced biodiversity, lower carbon sequestration, and adverse affects on water quality and supply.

2. Country Commitment

2. The GOK recognized the importance of addressing the issue of mostly abandoned drylands in the northern areas of the country, given the ecological and economic implications. The government's strategy for desertification control through rehabilitation of drylands through alternate sustainable land-use systems was articulated in the National Action Plan (NAP) and the National Environmental Action Plan (NEAP) prepared in accordance with the United Nations Convention to Combat Desertification (UN-CCD). In addition, the Republic of Kazakhstan planned to join the Kyoto Protocol of the UN Framework Convention on Climate Change (UN-FCCC) and identified in the NEAP the need to reduce greenhouse gas emissions as a priority environmental problem of global significance. The GOK Strategy for Agriculture and Environment¹ reflected these priorities.

3. Country Assistance Strategy

3. Protecting and enhancing the environment was a major challenge identified in the Kazakhstan Country Assistance Strategy (CAS, January 2001). The overarching objective of the CAS was poverty reduction and improvement of living standards. It identified four main areas for investment in support of the objective, and within them, protecting the environment. As such, the activities proposed under the project responded to the CAS's objective of environmental protection.

¹ Section B.2.2.

1.2. Original Global Environment Objectives, Components, and Key Indicators (as approved)

4. The development objective of DMP was to demonstrate and promote sustainable land uses in the marginal drylands ecosystem of a pilot area in the Shetsky rayon. The project's global environmental objectives were: (i) improved knowledge on quantification and monitoring of carbon sequestration under different land use types; (ii) increased carbon sequestration for climate change mitigation; (iii) improved biodiversity; and (iv) control of land degradation. Indicators for the achievement of the project's development objectives included:
- Number of hectares under sustainable use²: (i) re-vegetation of abandoned cereal land on 30,000 ha; (ii) improved management of degraded pastures and rangelands on 50,000 ha; and (iii) provision of 40 water points.
 - Successful demonstration of alternative land use systems, providing the economic and social feasibility of livestock-based production systems in similar ecosystems;
 - Increase in number of livestock (from 35,000 to 70,000 animal equivalent units);
 - Improvement of income and living standards of the beneficiary population.

Indicators for the global environment objectives included: (i) quantity of carbon sequestered in soil; (ii) new empirical data on quantity of carbon sequestered in the continental steppe ecosystem; (iii) biodiversity conservation; (iv) reduced soil erosion; and, (v) reduced recurrence of locust infestations.

This five-year project was financed by a US\$ 5.27 million grant by the GEF and implemented by the Ministry of Environmental Protection. The DMP was directly linked to the priority topics of GEF's Operational Program No.12 on Integrated Ecosystems Management (GEF OP12) through reversing land degradation, improving carbon sequestration, enhancing biodiversity and increasing agricultural production. The project's holistic approach of combining good pastoral/arable practices with ecologically sustainable land use management was the first of its kind and considered as a model for GEF OP-12.

1.3. Revised Program Development Objectives, Components, and Key Indicators

5. The original objective was not modified and the associated outcome targets remained unchanged, except for a minor revision in the indicator of numbers of water points, originally targeted at 40. During the MTR (October 2006), the Bank agreed with the MEP to reduce the number of installed windmills to 16, which resulted in a revised target of 31 water points.

1.4. Main Beneficiaries

² to be considered satisfactory if at least 70% of the following targets was achieved

6. The main beneficiaries identified in the PAD were farmers and rural households in the project area. The total population was estimated at 19,499 people living in 11 sub-districts in the project area³, including over 600 landholders. The average household size is 4.2 people and over 95% obtained a living from farming. Initial meetings between the Bank and project stakeholders in June 2000 indicated full support for the project objectives and good awareness of the needs for developing more sustainable agro-pastoral practices. During preparation, consultations took place with village and community groups. In addition, the PAD identified specialized local institutes to conduct for research and demonstration activities.

1.5. Original Components (as approved)

7. **Component 1: Development of Sustainable Land Use Systems (US\$5.5 million).** At appraisal, the following activities were planned to be supported under this component:
 - (i) **Revegetation of Abandoned Cereal Lands**, including (a) direct seeding of perennial grasses; (b) seeding of perennial grasses using conservation tillage; and (c) assisting farmers with acceleration of natural revegetation. This component was expected to help revegetate about 30,000 hectares of abandoned cereal lands.
 - (ii) **Management of Degraded Pastures and Rangelands:** The project would support the improvement of the vegetative cover and management of degraded pastures and rangelands. The activities were designed to increase productivity of degraded pastures and reduce grazing pressures around villages by restoring 40 watering points.
 - (iii) **Validation and Demonstration of New Technologies:** The project would support a pilot program in four demonstration areas with the objective of demonstrating the various methods available to plant perennial and annual grasses at the lowest cost.
8. **Component 2: Initial Service Support to Producer Groups (US\$1.3 million).** This component was designed to provide grant financing to farmers in the project area to start a transition to improved practices, which would likely result in sustainable income generation in the long run with largely inherent global benefits. The component would also provide assistance to producer groups by establishing milk collections centers, and a regional market for farm products in the main town of the project area.
9. **Component 3: Quantification of Carbon Sequestration (US\$1.3 million).** This component was designed to provide assistance for improving knowledge and skills to quantify and monitor carbon sequestration so as to enable the government to meet its obligations under the UN-FCCC.

³ December, 2001

10. **Component 4: Public Awareness and Replication Strategy (US\$0.9 million).** The component would carry out public awareness and capacity building activities in the Shetsky Rayon, regional and national levels and develop a replication strategy so that project interventions could be replicated in other similar drylands ecosystems, within and outside Kazakhstan.
11. **Component 5: Project Management Unit (US\$0.7 million).** A Project Management Unit (PMU) would be established to handle fiduciary tasks (procurement, financial management and disbursements), as well as the monitoring and evaluation of project activities. The PAD clearly identified PMU responsibilities and reporting requirements.

2. Key Factors Affecting Implementation and Outcomes

2.1 Project Preparation, Design, and Quality at Entry

12. ***Strategic Approach.*** The project was designed under the assumption that combating desertification and loss of fertility in the drylands of Kazakhstan's Shetsky Rayon is dependent on adopting better land practices, improving the living standards of land users and providing scientific knowledge for carbon storage under different land use practices. The project was technically designed with a strategic approach to address increasing threats of drylands degradation and desertification. The strategy was to provide demonstration sites, equipment inputs and technical assistance to promote adoption improved technologies which could be replicated. The design was based on proper environmental considerations in agro-pastoral practices to promote a comprehensive strategy that could demonstrate a different approach to the negative trend of the business-as-usual approach, and a way to halt this trend. The project was designed to develop alternate land uses that were not only ecologically sustainable but also economically feasible and socially acceptable, which in turn would add the benefit of improving the financial viability of rural villages in the Shetsky Rayon. An increase in farm incomes would improve agricultural productivity, discourage cereal growing in marginal areas and increase livestock population.
13. ***Lessons learned and reflected in the project design.*** The first and perhaps main lesson incorporated in this project was the importance of linking the objectives of environmental protection and sound land use and management with tangible benefits for rural families. The project placed emphasis on managing lands for improved natural resource management and conservation which also helped to return once abandoned lands to productive use, while at the same time generating improved incomes for local stakeholders and users of the land. Though this concept of improving the environment by mitigating the threat of desertification and simultaneously improving the lives of local population is not new, cases of actual implementation were infrequent. Another feature worth highlighting is the multiple-focus strategic approach which encompassed rural landholders, local and central authorities, businesses, and research institutions, which working together set up the

basis for developing the links between land management and income-generation. The need for local ownership was another leading criterion in project design. By situating the PMU in the project area, the project promoted decentralized responsibility for project management as an essential element to build commitment for the sustainability of project activities.

14. Additional lessons incorporated into the design of the project were: (a) the importance of training for project related activities such as procurement, disbursement, supervision, and financial management; and (b) the need to inform, disseminate and communicate relevant information to all stakeholders.
15. **Consistency.** Project design was fully consistent with the priorities of the country and in accordance with the Bank and GEF strategies for the country, i.e. helping to reduce the barriers to farmers adopting environment-friendly agro-pastoral practices. Additionally, the project was designed with the selection of a particular site as the main pilot area given the limited budget available. The project was consistent with GOK recognition of the need for a holistic approach that combines sound agro-pastoral practices and ecologically sustainable land use management to contribute to the reduction of land degradation and desertification.
16. **Project design.** The PAD highlighted the need to achieve an effective collaboration in project planning and implementation activities, with agriculture and soil conservation specialists working together under the coordination of the MEP (and subsequently with participation of MOA). The governance of the project based on decentralized responsibility for project management, was effectively designed to respond to a frequently highlighted (but seldom applied) need for developing effective tools to achieve an integrated approach in terms of land-use, development, and soil conservation with the pertinent and complementary support of research-based decision making. Two possible weaknesses related to project design include: (a) limited financial analysis conducted during project preparation; and (b) rehabilitating some of the numerous abandoned wells in the area was not considered.
17. **Risk assessment.** Critical risk identification was comprehensive at appraisal. All identified risks (from outputs to objective and from components to outputs) were accordingly rated and mitigation measures clearly identified.
18. **Adequacy of participatory process.** Stakeholder consultations and inclusiveness of local landholders and businesses at all levels was very adequate during preparation and helped to inform project design. This was a necessary requisite, taking into consideration that the project strategy was based on a strong participatory process, including local land-holders, with the pertinent capacity building and communication campaigns, and Government agencies as a major factor to the success of the project (Annex 6).

2.2 Major Factors Affecting Implementation

19. There were no major changes and/or restructuring which could have affected project implementation. Nevertheless, the ex-post assessment suggests that several issues had an impact project implementation, including:
20. ***Frequent rotation of key counterparts and weak coordination at the Ministerial level.*** The quality of project implementation was affected by frequent changes of authorities at both central and local governments. During the life of the project, four different ministers of Environment, two Oblast Akims and four Rayon Akims were in office. The dependence of project activities on these authorities affected decision-making. The lack of a specialized technical unit within the Ministry on the issues addressed by the project caused delays in decision-making and affected project implementation as MEP authorities lacked the necessary advice to guide PMU actions. This was compounded by insufficient interaction between MOA and MEP, as the expected coordination described at appraisal did not materialize. However, in spite of these facts, the project objectives were fully achieved, largely due to the dedication of the PMU, local landholders and producers' organizations in the project area.
21. **Selection of field equipment.** The project acquired a comprehensive set of equipment that was expected to be operated and remain in the hands of beneficiaries. The purchase of a large integrated direct seeder (Morris Seed Complex) proved to be not fully appropriate for the needs of the project. As a result, it was mainly utilized for training and education rather than field production. The purchase of equipment by MEP and the lack of an agile mechanism for its transfer to farmers was finally formally resolved and the transfer was formalized in October 2010. Through a formal transfer agreement, satisfactory to the Bank, the machinery will remain under the administration of the Olzha-9, a second-level farmer organization established with project support.

2.3 Monitoring and Evaluation (M&E) Design, Implementation, and Utilization

22. **M&E Design.** A well-designed monitoring and evaluation system was considered critical to ensure the project's timely and successful implementation, and enhance its impact by a systematic analysis of lessons learned and their effective dissemination. The design included key performance indicators for outcomes and intermediate outcomes for the four main components of the project. The quality of indicators is considered satisfactory for the overall monitoring of the project.
23. **M&E Implementation.** Although specific M&E software was not fully developed, the collection of data undertaken by the PMU allowed to adequately monitor and evaluate progress of project implementation. In addition, a social survey was conducted during the last year of the project by an independent firm which showed important positive results, including: a) improved living standards in the project area; b) transition to traditional livestock production; and c) increased production of fodder crops with soil-protecting techniques. The survey also identified concerns

regarding the sustainability of actions and the limited reduction of grazing near villages and conventional practices of cereal-based crops still important. In terms of impact, the real impact of the project will be determined in the future as land fertility and carbon storage is expected to increase under the new methods of soil-crop systems.

24. **Utilization.** With regards to environmental monitoring, information available on the selected indicators has been collected. This said, the correlation between implementation of land use systems and the increase in carbon storage and biodiversity response will require continued monitoring because of the natural time lag of such activities. However, the capacity built by the project in the scientific sector (Research Institutes) has set up the necessary tools and the baseline information to implement adequate medium and long-term monitoring methods, from satellite image analysis and specific methodologies for particular indicators on sites and species.

2.4 Safeguard and Fiduciary Compliance

25. The project complied with the World Bank safeguard policies indicated in the PAD: (i) OP 4.01: Environmental Assessment and (ii) OP 4.09: Pest Management. Although OP 4.04: Natural Habitats was not considered applicable to the DMP at the time of approval, the project also applied the principles of this safeguard.
26. ***Environmental Assessment (EA).*** The Project complied with all requirements under OP/BP/GP 4.01 including those for the methodology and content, rating and timing, and the consultation process of the EA. The EA was prepared in early 2002 and identified overwhelmingly positive impacts. The final draft of the EA was received by the Bank and disclosed in the InfoShop on January 25, 2002. The EA was widely disseminated among stakeholders and project beneficiaries. During implementation, compliance of project activities with the EA was monitored by supervision missions and assessed as satisfactory. In addition, a detailed system to monitor project impact on the environment was developed based on a) baseline surveys, b) demonstration plots, c) monitoring for biodiversity, carbon stored, soil quality, manure handling, and practices carried out as “best farming examples”.
27. ***Pest Management.*** The shift from crops to perennial grass species in itself implies a dramatic reduction in the use of chemicals. In addition to not financing any chemical product or equipment according to OP 4.09, the project took proactive measures to support improved practices in pest management, although input use remained the responsibility of the farmer.
28. ***Natural habitats.*** The project did not fund logging or deforestation activities and there were no identified project interventions that could cause any harm to, or loss of, natural habitats. Nevertheless, for precautionary principles, the original design should have triggered the safeguard for Natural Habitats (OP/BP/GP 4.04). The

establishment of *Agropyron* pastures was not conducted in areas of native grasslands, thus minimizing the potential risk to biodiversity and natural ecosystems.

29. ***Social.*** Farmers were actively involved in project preparation and implementation. Decision-making was based on a preliminary baseline socio-economic survey at the village level. The project also promoted partnerships among farmers. The socially oriented approach and focus of the project was satisfactory.
30. ***Procurement.*** The PMU prepared tender documents and followed Bank bidding procedures based on the relevant guidelines. Bank missions periodically reviewed the procurement arrangements and found them to be satisfactory and in compliance with agreed procedures in the Grant Agreement and Bank procurement guidelines. The 18 contracts awarded with values above the established thresholds were prior reviewed by Bank procurement specialists. During project implementation, the Bank team conducted four procurement post reviews⁴.
31. ***Financial Management.*** Bank supervision missions confirmed that Financial Management activities were conducted in compliance with Bank guidelines. All grant funds have been fully disbursed and all information was reported according to acceptable standards and procedures, except for a minor discrepancy regarding the Bank financing percentage applied to contracts signed in late 2005. This has been raised by the Bank following project completion, and is under consideration by MEP. The summary of actual project costs showed higher than originally allocated expenditures for the PMU and operating costs. All audits, except for the 2009 audit report, were received on time and auditors have provided clean opinions for Project Financial Statements. The audit for 2009 was waived given there was no disbursements.

2.5 Post-completion Operation/Next Phase

32. At the operational level, the establishment of the farmer's organization and the transfer of all project equipment from MEP should ensure sustainable continuity and expansion of activities beyond project completion. Furthermore, project results should allow for improved government incentive programs and policies related to (a) promotion of the comprehensive technological package developed and tested by the project, (b) fostering institutional partnerships, and (d) disseminating experiences among farmers of the Shetsky region and to other regions.
33. Farmer organization in the project area has been considerably strengthened by the project. The second level association (known as Olzha-9), comprised of nine farmer associations with a total of 133 members, is now well established and consolidated. Olzha-9 has received the mandate to manage project assets, and promote the adoption and dissemination of project technologies. This organization represents one

⁴ April 2005, October 2006, February 2008 and December 2008

of the most important achievements of the project and provides a reliable transition arrangement beyond the life of the project. Olzha-9 has developed strong links with local authorities and contributed additional resources to complement project investments. The organization also plans to expand its activities and become a training center to promote and consolidate knowledge for its members and expand its membership.

34. Regarding possible follow-up interventions, the GOK, through MEP, has expressed interest in disseminating the important results of the project, and the possibility of using the information generated to further address land-use and land degradation, sustainable livelihoods, as well as climate change on a broader scale in Kazakhstan. The possibility of materializing this expression of interest will largely depend on the allocation of GEF resources to Kazakhstan, and the priorities defined by GOK regarding the utilization of such funds.
35. The research institutes, mainly UUU (Institute of Soil Science and Agro Chemistry) and JSC (National Center of Space Research and Technology) have acquired necessary equipment and have expanded their capacity in producing scientific information using international standards. The Institute of Botany and Geophysics (IBG), the UUU and the International Maize and Wheat Improvement Center (CIMMYT), worked together with USDA and documented recommendations generated for future sustainable practices to halt degradation, improve production and generate incomes while maintaining the steppe biodiversity. MEP acquired scientific information from the field and is now in a position to plan future reduction on greenhouse-gas emissions while storing additional carbon in the soil by improved sustainable practices. This provides GOK with solid elements in support of the ongoing discussion and negotiations with UN-FCCC.

3 Assessment of Outcomes

3.1 Relevance of Objectives, Design and Implementation

36. The project had significant relevance in terms of objectives, design, and implementation. The most important is the development of a model for technologies to address land degradation and promote the economic recovery in large areas of Kazakhstan. The project has provided a new technological package for rural development in which not only productive lands are conserved but also improved in terms of soil management by applying zero tillage, migrating from cereal-based production to more sustainable livestock systems, and increasing the number of heads and animal fodder through the utilization of a perennial grass species (*Agropyron*). Apart from the infrastructure left by the project, the business of producing *Agropyron* seeds has provided profits for farmers. In terms of sustainability, MOA has recently announced subsidies for the purchase of *Agropyron* or wheat-grass seeds to help farmers grow grasses to increase hay production and expand pasture activities. Replication channels have been identified having the potential to be expanded within and beyond the Shetsky Rayon, as in the case of the

neighboring rayon of Taldykorgan, where farmers have already sown 300 ha of *Agropyron*.

3.2 Achievement of Project Development Objectives and Global Environment Objectives

37. All global environmental objectives of the project were achieved. The project was designed to identify possibilities for recovery of the livestock sector on marginal cereal lands and generate specific knowledge needed to address the priorities of improvement of livestock management and enhancing growth and development in the rural areas. During the five-year implementation period the project made a number of significant contributions in the following areas:
- a) More than 35,000 hectares of abandoned lands were restored with the establishment of pastures based on *Agropyron* (wheat grass).
 - b) At least 105,000 hectares of degraded and remote pastures have been restored and brought into sustainable production.
 - c) Thirty-six water points were established, providing drinking water for cattle in remote areas and using alternative energy sources from windmills, solar batteries, and generators.
 - d) Livestock numbers in the project area have increased by 125%.
 - e) Income growth of 350% has been reported and living standards have improved for the sampled farmers benefited from the project.
 - f) Nine existing farmer associations comprising a total of 133 small and medium farmers have been integrated into a second-level organization (Olzha-9) providing a viable mechanism for administration of assets and dissemination of results to other farmers.
 - g) Agricultural machinery and equipment has been tested for improved field management techniques, mainly zero tillage and direct seeding.
 - h) In general the global environmental objectives were reached by:
 - a. Advanced knowledge on identification and measurement of volume of carbon storage through different types of land use; and,
 - b. Improvement of lands for the conservation of biodiversity while stemming degradation of soils.
38. The project has also produced important materials for awareness building, such as brochures and a video on project results. For the first time in Kazakhstan, pilots for sustainable land use systems have been put in place. The adoption of these techniques at a larger scale will be time-dependent. Although better coordinated actions between MEP and MOA would have been desired, the project provided important inputs to agricultural policies and support programs, applicable to the mostly underutilized dryland areas of the country.
39. The project has contributed to create national capacity by developing methodologies for carbon measuring and monitoring while at the same time provided the necessary inputs to address climate change matters. The strengthening of capacity for remote sensing and modeling in carbon storage, especially in the Soil and the Space Research Institute is of importance for Kazakhstan and the

region⁵. The application of the EPIC modeling to Kazakhstan (as a result of cooperation with USDA) has created strong national capacity in carbon accounting. The project has demonstrated the compatibility of *Agropyron* production in the steppe biome and the benefits of these production systems to rehabilitate degraded areas. Leading farmers through Olzha-9, have expressed interests in strengthening their role in the training of their members, and providing services to the community through a training center, with facilities and equipment that were provided by this project.

3.3 Efficiency

40. Analysis within the project area showed a total of 35,179 hectares of different land use systems with *Agropyron* adopted in the 10 rural districts comprising the project area, of which the most sustainable system was conservation tillage with 16,900 hectares. The project planned to cover at least 70% of 30,000 hectares. The DMP achieved (a) 10,266 hectares with direct seeding, (b) 16,902 hectares with seeding using conservation tillage, and, (c) 8,011 hectares under acceleration of natural revegetation. Additionally, the project has demonstrated impact on 105,000 ha of degraded pastures. According to the financial analysis (Annex 3), the production of *Agropyron* hay and seed on the entire project area (34,500 ha) showed good economic return. According to the analysis, *Agropyron* hay and seed production has a sound potential, with an IRR of 23%. Supporting these calculations, an analysis conducted using remote sensing, identifies a total area of over 70,000 hectares seeded to *Agropyron* during the project lifespan, suggesting that an additional 35,000 ha were seeded in the project area without financial support from the project.
41. The 133 farmers that have directly benefited from the project, represents about 20% of the estimated 673 land holder of the project area. Olzha-9 and the 133 members have also been benefited by the marketplace, the milk distribution facilities (IRR 30%) and the slaughter house (IRR 15%). A typical farm with hay production and livestock (cattle, horses and sheep) showed an IRR of 51% for a period of 20 years which suggests that the income level of typical farms had a reasonable and sustainable positive shift due to the adoption to *Agropyron* production and livestock breeding. In the case of water-points, the analysis showed an IRR of 79%, again overestimated but showing the importance of these investments in terms of income generation.

3.4 Justification of Overall Outcome Rating

Rating: Satisfactory

⁵ Annex 10 – 12

42. The inputs provided have successfully contributed to the achievement of all relevant indicators. Most importantly, the project has demonstrated the viability of an environmentally-friendly production system, well adopted by a representative number of farmers and with the policy and institutional mechanisms to promote expansion to other similar areas of the country. This rating is supported additionally for the project's contribution to mitigate land degradation and develop knowledge on carbon sequestration technology, indicating that the objectives have been achieved both at the field level and in terms of scientific and institutional capacity.

3.5 Overarching Themes, Other Outcomes and Impacts

a) Overarching themes

43. **Sustainable land use practices in marginal areas.** The project successfully piloted and demonstrated alternate land use practices on which rendered economically feasible and socially acceptable by landholders as well as providing a better ecological impact on lands, the ecosystem and the biodiversity. The project demonstrated the importance and feasibility of reestablishing livestock-based production systems, restoring abandoned lands and improving degraded pastures, providing new areas for grazing and fodder production for winter feeding. Technical assistance has resulted crucial in the adoption of new techniques and mechanisms for both production and marketing. Moreover, the project gave preeminence to a problem-oriented vision, in contrast with the traditional governmental-oriented approach, opening a wide range of opportunities for multi-disciplinary and cross-cutting approach at different levels.
44. **Environmental improvement and biodiversity conservation.** The project has contributed not only to the general discussion on land degradation issues but also has contributed to the global knowledge on addressing the reduction in the capacity of soils to produce benefits from a particular form of land management system. The project has contributed to the general knowledge of human-induced factors which contribute to land degradation, in particular agricultural land use, poor soil and water management practices, removal of natural vegetation, frequent use of heavy machinery, overgrazing, and improper crop selection. The information on biodiversity collected and the analysis of different productive systems has demonstrated the compatibility of conservation and production in a steppe ecosystem.
45. **Poverty alleviation, income generation and diversification of production.** The project has demonstrated, on a limited scale, the importance and pertinence of suitable interventions through technical assistance and start-up inputs to promote diversification of land use and generation of income from the sustainable use of natural resources in drylands. This, as well as the support to milk production and marketing, has also benefited the poor households from villages in the project area,
46. **Carbon storage and land use systems.** Drylands, as an ecosystem with extensive surface area across the globe, have been identified as a potential candidate for major

carbon storage efforts. The project demonstrated in practice means to increase carbon storage from particular land management practices which also increase incomes.

(b) Institutional Change/Strengthening

47. Though a better coordination could have been developed with MOA for immediate adoption of practices proposed and a better appropriation of sound environmental practices, effective coordination and collaboration between institutes, local government and MEP at the local level was developed. This promoted decentralization, a very significant step towards institutionalization of horizontal collaboration and interactions among central and local government agencies, an essential component for the development of sound environmental policies and actions. Both MEP and MOA are in the process of identifying suitable mechanisms to apply the information generated on carbon stored in soils and monitoring techniques to further advance policy-making in Kazakhstan.

(c) Other Unintended Outcomes and Impacts

48. The DMP design included a highly participatory process involving farmers. However, the establishment of Olzha-9 as a second-level farm organization can be considered a successful unintended outcome of the project. This unique organization has incorporated management skills and developed business plans for future activities thus representing one of the most reliable achievements of the project, allowing for project assets to be used not only to consolidate best practices but also to expand the adoption of technologies and incorporate more members to the organization.

3.6 Summary of Findings of Beneficiary Survey and/or Stakeholder Workshops

49. In addition to the beneficiary survey described previously, a workshop was held in December 2009 led by the Vice-Minister of Environmental Protection, Ms. Sadvakasova Eldana Makinovna, other MEP authorities, members of participating Institutes, Olzha-9 members, and PMU staff (Annex 6). Main highlights included: (a) opportunities for multi-disciplinary and cross-cutting approaches at different scales, (b) Olzha-9 and its leadership in innovation in land-use management, (c) sustainability and the possibilities of replication in neighboring areas within and outside the Shetsky Rayon, and (d) the need to improve the management and operation of the slaughterhouse and a milk collection center.

4 Assessment of Risk to Development Outcome

Rating: Moderate

50. Risks to development outcomes are considered moderate due to the likelihood of continuity of project interventions. Although evidence suggests that utilization and dissemination of practices among farmers in the project area will continue, the

replication of project actions to other regions will largely depend on the willingness of agricultural authorities to provide support and incentives for the adoption of such practices. Other reasons which could jeopardize the development outcomes are: (a) limited financial resources by farmers; (b) lack of future government commitment; and (c) unpredictable market fluctuations.

5. Assessment of Bank and Borrower Performance

5.1 Bank Performance

(a) Bank Performance in Ensuring Quality at Entry

Rating: Satisfactory

51. The Bank's task team and Management provided adequate dedication to the design of this innovative and challenging project which included potentially risky investments. The task team, in close cooperation with GOK, set forth a sound project design which balanced the overall strategic approach, technical and financial aspects, components, implementation arrangements and fiduciary aspects. Team composition and preparation resources were adequate to conduct necessary design activities. During project preparation, risk identification was comprehensive and objective of which the most challenging was the need to motivate farmers to switch from crop-based to more traditional livestock-based production system and encourage them to expand remote areas with inadequate conditions for livestock farming. Mitigation measures identified proved adequate to overcome risks encountered.

(b) Quality of Supervision

Rating: Satisfactory

52. The Bank task team conducted 14 supervision missions, providing adequate inputs and guidance to both the recipient and beneficiaries. A total of 12 ISRs were filed with straightforward reporting on the issues focusing on implementation progress and its impact on project objectives. Issues raised in Aide Memoires were duly addressed and records of actions are well documented. The review of ISRs and indicators identified inconsistent reporting in the number of GEO and intermediary indicators, which was resolved in ISR #11 (April 2009). When the Government's procurement issues were identified, the task team addressed them duly. The delays in final payment to the Research Institutes and the difficulties to transfer project assets to the beneficiaries should have been identified earlier. Although transfer of assets to beneficiaries was finally resolved (see Borrower's letter in Annex 7), this should have been anticipated and resolved well before the final year of the project.
53. The commitment and dedication of the Bank team to the project (particularly of the country office-based TTL) may have resulted in certain over-management of project implementation, occasionally influencing decisions of the PMU. Examples of this are the purchase of the Morris Seed Complex and the decision-making process leading to the investments in milk distribution equipment. Towards the end of the

project, there was a change of Task Team Leader. Aide-memoirs and actions required expressed in the ISRs indicate that the new leadership was required to address delayed pending matters (in particular the process for the transfer of project assets to beneficiaries) as well as constructing a sound base of project indicators. Regardless of these issues, project supervision was satisfactory, with missions comprised of an appropriate blend of professionals to address all technical and fiduciary matters of this innovative project.

(c) Justification of Rating for Overall Bank Performance

Rating: Satisfactory

54. Given that both design and supervision are considered satisfactory, Bank overall performance is rated Satisfactory. Bank staff and experts provided the necessary inputs for an efficient project design taking into account most of variables in the project area and the GOK. During supervision, the Bank has covered all aspects of project implementation, providing adequate support and technical advice to the PMU.

5.2 Borrower Performance

(a) Government Performance

Rating: Satisfactory

55. Overall, the GOK demonstrated commitment and responsiveness to achieve the proposed development objectives of the project. Despite the lack of technical oversight adequate political support was provided by MEP throughout project preparation and implementation, including coordination with MOA at the local level. Bank missions reconfirmed that the PMU was working efficiently and effectively towards project implementation and addressed recommendations for project improvement.

(b) Implementing Agency or Agencies Performance

Rating: Satisfactory

56. The structure and staffing of the PMU evolved from the project preparation unit and has shown adequate capacity to coordinate and administer all project activities in a timely manner and provided an efficient link with the Project Steering Committee and the Bank. The support provided by the PMU was identified by beneficiaries as a key factor to the successful implementation of project activities at the field level. The decentralized office in the Shetsky Rayon was instrumental to achieve the important task of interacting with farmers during the initial phase of the project. The only relevant low-rated action may be the disconnect with MOA.

(c) Justification of Rating for Overall Borrower Performance

Rating: Satisfactory

57. Borrower performance is rated satisfactory. Both MEP and the PMU have complied with the agreements in the legal documents, and have participated in the Bank's missions doing the pertinent follow-up as well as supporting the satisfactory implementation of the project.

6. Lessons Learned

- a. **Sustainability.** In order to achieve the transformation of production patterns in a given agro-ecological setting, the interaction of the scientific and end-users is key, but public support instruments must be identified and are required well beyond the life of the project.
- b. **Environment and Agriculture: Institutional Integration and Coordination.** Adequate promotion, adoption and dissemination of good practices for the productive use and management of natural resources require strong integration and coordination between environmental and agricultural authorities.
- c. **Complexity.** This project has shown the importance of well thought design in an operation with complex implementation requirements. The project combined agricultural techniques and production, training and extension, infrastructure, scientific research and marketing. Such a complex combination of inputs and outputs requires a very thoughtful design and an adequately funded implementation support structure.
- d. **The Importance of a Multi-sectoral Approach in GEF-financed projects.** The project is a clear example of projects which require a multi-sectoral approach to succeed. The project combined needs of the GOK to produce sustainably, collaboration with farmers and academia and promote the inclusiveness and advantages of associative initiatives.
- e. **Synergies between Research, Technical Assistance & Technology by Adoption.** The project demonstrated that the achievement of the ambitious objective of modifying production patterns requires the balanced and timely interaction between research, technical assistance and end-users (farmers).
- f. **Improved Production and Marketing.** Developing a sustainable production package requires not only meeting environmental criteria but also demonstrating the financial viability of proposed practices and production schemes. Providing project support beyond production is important to project success provided that such support is directly linked to the production system being promoted.

7. Comments on Issues Raised by Borrower/Implementing Agencies/Partners

(a) Borrower/Implementing agencies

On October 11, 2010, by means of an official letter (Annex 7) MEP reconfirmed their appreciation for the sustained support provided by the Bank to the GOK as well as full consent with the findings and recommendations provided by the ICR in its final draft version. All comments expressed in the letter have been duly incorporated in the ICR. At the same time, the Vice-Minister ratified that GOK would make all efforts possible for further development of sustainable land uses in the country.

(b) Co-financiers

Not applicable

(c) Other partners and stakeholders

Not applicable

Annex 1. Project Costs and Financing

(a) Project Cost by Component (in USD Million equivalent)

Components	Appraisal Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Percentage of Appraisal
DEVELOPMENT OF SUSTAINABLE LAND USE SYSTEMS	4.64	5.23	112
INITIAL SERVICE SUPPORT TO PRODUCER GROUPS	1.09	1.26	115
QUANTIFICATION OF CARBON SEQUESTRATION	1.12	1.06	94
PUBLIC AWARENESS AND REPLICATION STRATEGY	0.71	0.63	88
PROJECT MANAGEMENT UNIT	0.61	1.41	231
Total Baseline Cost	8.17		
Physical Contingencies	0.82		
Price Contingencies	0.71		
Total Project Costs	9.70	9.59	99
Project Preparation Facility (PPF)	0.35		
Front-end fee IBRD	0.00		
Total Financing Required	10.05		

(b) Financing

Source of Funds	Type of Cofinancing	Appraisal Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Percentage of Appraisal
Borrower		2.40	2.39	99
Global Environment Facility (GEF)		5.27	5.27	100
UN Global Mechanisms-UN Convention to Combat Desertification		0.10	0.00	0
Local Farmer Organizations		1.93	1.93	100

Annex 2. Outputs by Component

	Output Indicator	Target	Unit	Data Source	Value at EOP
Component 1: Development of Sustainable Land Use Systems					
1.1	Direct seeding on abandoned lands	At least 70% of 10,000 ha	Hectares	PMU	10,266 ha
1.2	Seeding using conservation tillage	At least 70% of 10,000 ha	Hectares	PMU	16,902 ha
1.3	Acceleration of natural vegetation	At least 70% of 20,000 ha	Hectares	PMU	8,011 ha
1.4	Management of degraded rangelands and pasturelands	Validation and demonstration of new technologies in four demonstration plots	4 sites	PMU	Four sites within one location close to Aksu-Ayuly were established
		Installation of 40 (16 → 30) water points in the project area	units	PMU	A total of 36 water points were established (21 windmills, 10 solar batteries, 5 generators)
		Reduced overgrazing by at least 70% of current levels	Hectares	PMU	More than 100,000 hectares were rehabilitated with livestock movement
		Increased livestock numbers	No. of heads	PMU Olzha-9 Reports	114% increase in cattle, 100% in horses and 119% in

					sheep animal heads
Component 2: Initial Service Support to Producer Groups					
2.1	Improved access to market of livestock products	Creation of market in Aksu-Ayuli	1	PMU Olzha-9	Market (Bazaar) created and operational
		Establishment of marketing associations	1	PMU	Olzha-9 represents 9 associations of producers (legally registered)
Component 3: Quantification of Carbon Sequestration					
3.1		New knowledge to quantify and monitor carbon sequestration	1	Institute PMU	New information available and currently in use
Component 4: Replication Strategy and Public Awareness					
4.1	Increased awareness and knowledge of sustainable livestock-based production system at local, national and regional level	Number of dissemination events, publications, recorded by the monitoring system of the project	number	PMU Reports	16 events carried out 1 video Several clips
4.2	Replication of project interventions within Kazakhstan and other countries of Central Asia				No data available
Component 5: Project Management					
5.1	Timely implementation of procurement plan				Achieved
5.2	Project monitoring and reporting system working effectively				Achieved

Annex 3. Economic and Financial Analysis

Economic and Financial Analysis

At the appraisal stage of the project, an incremental cost analysis was carried out as an alternative to an economic and financial analysis for the project. The aim of the incremental cost analysis was to reflect the contribution of GEF funds in terms of being a catalyst to promote the successful integration of improved land and natural resources management in dryland regions of the country. The incremental funding of the GEF grant was allocated to all five project components, in order to promote global environmental benefits.

At the appraisal stage, the contribution of GEF incremental funding was assessed in terms of qualitative measures, mainly due to the lack of empirical data and a previously implemented sample project. The main contributions of GEF incremental funding allowed generating empirical data on estimations of carbon sequestration, biodiversity conservation and control of land degradation. As conducting an economic and financial analysis for these qualitative measures is not appropriate, the financial and economic analysis carried out at project completion was aimed at analyzing the long term sustainability of project interventions.

This section includes an analysis both in terms of the impact of the incremental GEF funding according to the project appraisal and current financial analysis based on present value calculations aiming at determining the sustainability of the project results.

a) Incremental Cost Analysis

At the appraisal phase, the main global benefits proposed to be achieved through the incremental GEF funding were (i) improved knowledge on quantification and monitoring of carbon sequestration under different land use types; (ii) increased carbon sequestration for climate change mitigation, (iii) improved biodiversity; and (iv) control of land degradation. The contributions of incremental GEF funding in terms of global environment objectives stated in the main body of this report, suggest that all proposed global benefits have been achieved.

At appraisal phase, two independent estimations, which were not based on empirical data, were undertaken and found out that 0.6 million tons of carbon would be sequestered by the project in a period of 20 years, as baseline estimation.

As a result of project implementation, based on the simulation model generated by empirical data collected by soil institute's researches, the carbon sequestration in the region will be between 1.36 – 2.04 million tons in a period of 20 years. This provides ample evidence that two important global benefits, namely (i) improved knowledge on quantification and monitoring of carbon sequestration under different land use types; and (ii) increased carbon sequestration for climate change mitigation, have been fully achieved.

The project achievements in terms of biodiversity conservation and control of land degradation in the long term have also been described in the reports prepared by the Research Institutes financed by project funds.

b) Current Economic and Financial Analysis

The aim of this financial and economic analysis is to investigate the long-term sustainability of project interventions implemented by local farmers. Since the economic and financial analysis of the project was not carried out during the design stage, the current economic and financial analysis is not compared with the baseline situation, and instead is based on net present value (NPV) of the activities and internal rate of return (IRR) calculations. The data used in this analysis are based on the actual project results and data collected through the field visits and meetings with the farmers and other project stakeholders. The data regarding the typical farm and price of the commodities were based on available project reports.

The financial analysis has been conducted for investigating the sustainability of “*Agropyron* hay and seed production”, “Typical farm” and “Farm with windmill powered water point”. In this analysis, the initial investment costs of farmers, such as land and equipment have not been taken into account since it was impossible to estimate a value for those. Therefore, the only investment cost for these activities were assumed as the machinery, equipment and seed cost financed by the project. The long-term period has been defined as a period of twenty years, which is justified by the fact that *Agropyron* hay and seed production can be utilized continuously in this time frame.

Agropyron production

Production of *Agropyron* hay and seed on the entire project area (34,500 Ha) shows good economic return. Since different *Agropyron* hay cultivation technologies were applied⁶, the costs vary quite significantly. For example, under Zero Tillage technology the costs amount to US\$54/ha in the first two years and to US\$10/ha – in subsequent years, whereas under Conservation Tillage, the costs make up US\$66/ha and US\$10/ha respectively.

According to the analysis, “*Agropyron* hay and seed production” has a sound potential for sustainability with an average IRR of 23% and US\$2.2 million NPV for the entire area of 34,500 ha. This financial finding is also supported by the actual results in the field, since some farmers who were not benefited by the project have started to adopt *Agropyron* hay and seed production.

Typical farm production

⁶ Four technologies were applied during the project period: Zero Tillage, Conservation Tillage, Sowing & Fertilizing and Pasture Improving.

The concept of a typical farm has been defined in the “Monitoring Livestock Report”, representing an average farm in the region. The typical farm cultivates *Agropyron* on an area of about 300 ha and keeps about 55 heads of cattle (including 25 cows), 130 sheep and 15 horses. According to these reports, production of meat and milk increased significantly during the project implementation period.

In the financial analysis of this typical farm, it is assumed that the only investment cost for the first year is the cost related with hay production, such as cost of seeds, tillage, sowing, etc. For the second and third year it is assumed that the typical farm will purchase additional cattle and sheep as an investment cost. Based on these assumptions the IRR has been found to be 51% for a period of 20 years and the NPV is calculated as US\$ 48,920. In addition, the project's investment cost for machinery and equipment was not included, because it is impossible to distribute the total cost of machinery to a single farm. Therefore, although the actual IRR is probably lower than the calculated figure, the income level of a typical farm had a reasonable and sustainable shift due to the transition to *Agropyron* production and livestock breeding.

Farm with a windmill-powered water point

A windmill-powered water point allows farm to increase livestock production by setting into use remote pasture and haymaking fields. On average, a typical farm can double the size of the herd in two years. The feeding cost is lesser since consumption of hay and concentrated feed is decreasing significantly due to expansion of grazing area. Normally such a farm shifts to meat production due to remoteness of milk collection and processing facilities.

In this analysis, the cost of the windmill is added to the investment cost of a typical farm, increasing the investment cost to US\$ 36,419. Therefore, the revenue of the farm shows a considerable increase, yielding a 79% IRR and NPV of US\$ 109,963. This indicates that financial return of such farm is rather high and investment in windmill-powered water point is justifiable.

Table 1. Summary of financial and economic returns of DMP

Project activity	Investment Costs, US\$	NPV, US\$	IRR, %
<i>Agropyron</i> hay and seed production	1 219 733	2 200 607	23%
Typical farm (hay, meat and milk production)	18 362	48 920	51%
Farm with a windmill-powered water point (hay, meat and milk production)	36 419	109 963	79%

Olzha-9 business models

Agropyron hay and seed production

Olzha-9 cultivates *Agropyron* for hay on the area of 21,800 ha for hay and for seed production on 1,200 ha (23,000 ha in total or 67% of the project's cultivated area). Current plans are to increase the haymaking fields annually by 1,000 ha and seed area by 200 ha. The business model shows a sufficient financial return and sustainability.

Milk collection

The milk collection equipment financed by the project was leased out to one of the milk processors in the region. The information available suggests that this business operation is functioning reasonably well. The purchasing price of the raw milk collected by the processor is 37.65 KZT/kg

If the system would be administered by the farmer's organization (Olzha-9), the expected profit margin for the collected raw milk should not be less than 7 KZT/Kg. In this case, the price of raw milk supplied to the processor would be about 39.60 KZT/Kg, almost 2 KZT/Kg higher than the cost of milk collected under the current system. The proposed model has also high technical and financial risks due to a lesser collection capacity and higher cost of collected milk. In addition to this, Olzha-9 probably will not have the assured market, leading to the conclusion that the system in place is sustainable and adequate to the current operational capacity of the farmer's organization.

Slaughter house

According to the calculations, the slaughter house model would generate good financial return and sustainability if it processed 100% of slaughtered animals in the Aksu-Ayuly area where the facilities were established. It also requires intensive sale of additional services such as freezing and storage of carcasses and meat boxing. This would demand additional financing in the first two years.

Table 2. Summary of financial returns of Olzha-9

Business models	Investment Costs (US\$)	NPV, (US\$)	IRR, (%)
<i>Agropyron</i> hay and seed production	1 219 733	2 595 769	62%
Milk collection (Olzha-9 led)	75 224	38 158	30%
Slaughter house	203 053	17 975	15%

Carbon sequestration

A financial analysis for carbon sequestration was not carried out. It is difficult to identify the cost of project activities which are directly related to carbon sequestration. On the revenue side, there are very important achievements generated by the project which cannot be defined in quantitative manners, such as generating empirical data on carbon sequestration and establishing estimation models. In addition, the only quantifiable revenue for carbon sequestration is associated with carbon markets, which cannot under the current conditions be considered as an income generation activity for farmers in the region.

Carbon sequestration of the project area amounted to 1.8 million tons of CO₂ in the period under review⁷. The estimated economic return of the project with revenue from carbon sequestration is considerable, should a market develop. With the total project investment costs of US\$9.7 million, estimated NPV is US\$2.9 million. However, it should be taken into account that carbon credit values⁸ are subject to strong annual fluctuations, and methodologies for quantification and monitoring of soil carbon have not been approved by UNFCCC.

⁷ Based on the Soil Institute's report, it is estimated that the carbon sequestration rate is 3.0 tons / ha.

⁸ Price of carbon credits is estimated as US\$4.15/ton.

Annex 4. Bank Lending and Implementation Support/Supervision Processes

(a) Task Team members

Names	Title	Unit	Responsibility/ Specialty
Lending			
Maurizio Guadagni	Sr. Rural Development Specialist	ECSS1	Task Team Leader
Bulat Utkelov	Operations Officer	ECSS1	Co-Task Team Leader
Jitendra Srivastava	Consultant	ECSSD	Technical
Meeta Sehgal	Operations Analyst	ECSS1	Technical
Naushad Khan	Lead Procurement Specialist	SARPS	Procurement
Roque Ardon	Consultant	QAG	Financial Management
Allen Wazny	Consultant		Financial Management
Stan Peabody	Consultant	EASIS	Social
Andrea Pape-Christiansen	Consultant	ARD	Social
Rohan Selvaratnam	Senior Program Assistant	SASDO	Project Costs
Hannah Koilpillai	Senior Finance Officer	CTRFC	Disbursement
Kairat Nazhmidenov	Economist	FAO	Financial Analysis
Marjory-Anne Bromhead	Adviser	ARD	Quality Assurance
Supervision/ICR			
Michael G. Carroll	Lead Natural Resources Management Specialist	ECSS1	SPN
Bulat Utkelov	Operations Officer	ECSS1	SPN
Aliya Kim	Finance Assistant	ECCKA	SPN
Anara Akhmetova	Program Assistant	ECCKZ	SPN
Andrew James Mackie	Consultant	PRMPS	SPN
Anne N. Ranasinghe	Program Assistant	ECSC2	SPN
Dilshod Karimova	Procurement Analyst	ECSC2	SPN
Jitendra P. Srivastava	Consultant	ECSSD	SPN
Talimjan Urazov	Operations Officer	ECSS1	SPN
Maurizio Guadagni	Sr Rural Development Specialist		SPN
Pramod Agrawal	Consultant	EASVS	SPN
Nurbek Kurmanalev	Procurement Specialist	ECSC2	SPN
John C. Cole			SPN
Naushad Khan	Lead Procurement Specialist	SARPS	SPN
Janna Ryssakova	Social Development Specialist	ECSS4	SPN

Yuling Zhou	Senior Procurement Specialist	ECSC2	SPN
Kairat Nazhmidenov	Economist	FAO	SPN / ICR
Anara Jumabayeva	Agricultural Economist	FAO	SPN / ICR
Mustafa Ugur Alver	Junior Professional Associate	ECSSD	SPN / ICR
Alberto Yanosky	Consultant		ICR

(b) Staff Time and Cost

Stage of Project Cycle	Staff Time and Cost (Bank Budget Only)	
	No. of staff weeks	USD Thousands (including travel and consultant costs)
Lending		
FY01	15.88	101.35
FY02	14.28	65.19
FY03	19.57	106.91
Total:	49.73	273.45
Supervision/ICR		
FY03	0.00	0.29
FY04	10.27	57.31
FY05	13.59	58.47
FY06	15.38	59.43
FY07	13.03	63.07
FY08	14.10	58.20
FY09	17.19	67.94
FY10	5.11	23.98
Total:	88.67	388.69

Annex 5. Beneficiary Survey Results

As part of project implementation, a socio-economic survey was conducted by the firm Business Information, Social and Marketing Research Center (BISAM Central Asia) in 8 villages, with a sample of 40 farms and 100 households in Shetsky rayon. The aim of the survey was to gather primary information about the location, population, socio-economic development of county, status of households and farms. The survey was also intended to obtain information about the public awareness level regarding the project and to analyze the impact of project activities on the social and economic status of farms and households. The project aimed to promote the transition from cereal based agricultural production to livestock farming in a sustainable way. The project has been implemented mainly through the establishment of farmer associations in the project area.

According to survey results, the number of families in the farms is reducing rapidly. Thus, in 2001 one farm would consist of 5 families, while currently a similar farm consists of 1 or 2 families. The reason is a strong trend towards splitting up and distancing of families from each other. All the surveyed farms own land, so there are no purchased or rented lands in the surveyed area. Farms have an average area of 1,365.98 hectares, almost unchanged with respect to the situation in 2001. The area of pasture land accounts for 24% or 323 hectares on the average per farm. Main crops are wheat, barley, and hay.

During last five years, many farms became successful and living conditions in villages has improved. However, in the past few years, climatic conditions have resulted in financial constraints for the majority of farmers. The research revealed a three year trend towards reduction of cereal acreage due to drought or/and lack of precipitation. Since production of cereals became unprofitable, the role of livestock breeding has become increasingly important for the surveyed households and the main source of income for them. According to the survey, all of these factors have resulted in the increase in the livestock population in the project area. Surveyed farms have increased their herds 5.5 times on average (sheep – 6 times, cattle and horses – nearly two times, whereas surveyed households increased cattle (from 4 to 9 heads), sheep (from 7 to 15 heads) and goats (from 4 to 9 heads).

In comparison with 2001, surveyed villages presently have a higher marketable surplus of agricultural products. The overwhelming majority of the surveyed farms and households market different types of livestock products (95% and 84% respectively). Adequate veterinary services are provided in the surveyed villages by MOA officials, mostly free of charge.

Farms involved in the project have given positive assessment to their participation in the project. In the course of project implementation farms and households received *Agropyron* (Zhitnyak) seeds, fuel, seeding machinery, including hay harvesters and seed

treatment. As heads of farms stated, the project helped them considerably to increase their herds and improve fodder supply.

According to the survey results, surveyed villagers (households) are quite knowledgeable about the DMP, with a high project awareness level and participation in the project. The survey also showed that the project a) improved living standards, b) promoted the transition to traditional livestock production, c) increased production of fodder crops with soil-protecting techniques, and other positive results. According to the survey results, the project has helped to improve the situation with regards to: animal feeding (45% and 32% of the surveyed farms and households respectively), increasing the planted areas of perennial grass (40% and 21%) and increasing livestock numbers (43% and 31%).

On the other hand, in the results of the survey suggest that the awareness and perception of success is different among farmers and households, since 88% of farm heads assessed that the establishment of farm associations were successful whereas 52% of household heads assessed them as somewhat unsuccessful. Surveyed households indicated that some of the activities in the project could have been implemented more efficiently. According to the survey results, interviewed participants believed that (i) the rise in fodder production and productivity is due to an increase in livestock numbers; (ii) farmers' associations did not help lobbying for more favorable prices for animal products; (iii) most farms and households still sell their animal products outside of the project area; (iv) project funds have been directed, primarily, to the farms, and households have benefited less from the project, (v) the project has not influenced the grazing practices used by households, as villagers appear to still graze their animals near the villages.

Additional information on project beneficiaries and areas of project interventions.

Olzha-9 is composed of a total 9 associations and other farmers, totaling 133 farmers represented which were benefitted by the DMP and have planted a total of 34,500 hectares of *Agropyron*, an average of 260 hectares per farmer. Olzha-9 operates in the Shetksy Rayon with 10 rural districts (villages-associated) with a total number of farmers estimated in 673, thus the project has reached 20% of the landholders in the Rayon. These 20% of landholders own 5.7% of the area. The following table gives a breakdown of information by district.

Rural Districts	Total Farmers	Total area	Association	Farmers with <i>Agropyron</i>	Area of <i>Agropyron</i>
1	110	67436	yes	24	2545
2	104	67363	yes	28	10962
3	61	46326	yes	10	1989
4	64	63346	yes	6	4762
5	103	64848	yes	8	1270
6	79	79593	yes	17	4015

7	38	72648	yes	16	5490
8	37	55554	no	7	1006
9	42	38233	no	14	1471
10	35	45218	no	3	990
Total	673	600565		133	34500

Additionally, the project planned to promote improved management of degraded pastures and rangelands by reducing grazing pressures and increasing vegetative cover in 50,000 ha. The project has demonstrated to have improved an area of 105,000 ha of degraded pastures. According to a report of a livestock consultant (Mr. Alimayev) the area been impacted directly and indirectly is 723,456 hectares, representing over 50% of the Shetsky rayon.

Annex 6. Stakeholder Workshop Report and Results

A pre-preparation mission in September 2000 to the proposed pilot project area discussed project objectives with farmers and local representatives from all sub-districts, which provided additional insight to constraints faced by the rural population and the desire to improve their incomes by investing in sustainable agro-pastoral practices. This support for the project had been confirmed by the baseline survey carried out in 2001. During further preparatory work, full discussions took place throughout the project area and project activities were based on the needs of the farmers, who would be co-opted into assisting with the management plans. In the case of peasant farms consisting of multiple households, representatives of the individual households were involved in the discussions and decision-making on project participation. The project was also designed to empower producers and encourage their participation in producer associations.

The PAD also identified other stakeholders, such as government and local authority counterparts collaborating with various research institutions and continuing to actively pursue options for co-financing and establishing links between the proposed project and related national and international initiatives. The components of the project were identified as priorities in the country's agricultural strategy.

At project completion, a workshop was held on December 4, 2009 in Astana led by the Vice-Minister of Environmental Protection, Ms. Savakasova Eldana Makinovna, and attended by the Bank team, partnering Institutes and representatives of farmer associations from the project area. More specifically, participants included the Ministry's Chief for the Department of Legal Policy and International Cooperation, Mr. Alexander Bragin. Representatives of the Soil Institute, the Airspace Institute, CIMMYT, and Olzha-9, as well as other authorities of the Ministry, including the PMU staff. In this workshop, Olzha-9 farmers and representatives of Institutes had a chance to describe their experience and share their comments regarding the project. Olzha – 9 farmers provided detailed information about their farms and also expressed their opinion about the project and the future of the activities in the region. Farmers indicated that they were satisfied with *Agropyron*, and they were also planning to continue planting *Agropyron* after the closing of the project. In addition, it was indicated that the milk production activities in the region have a reasonable improvement and that milk sales have become an important income generation activity for the farmers and households in the Rayon.

Representatives from the Soil Institute and the Space Research Institute informed the participants about their research on soil classification and composition, the associated GIS information and results of producing perennials and annual grasses at a lower cost, in their presentations. Carbon and land-use practices during previous, present and future conditions raised the attention of authorities, demonstrating the importance of conservation practices for carbon storage. In addition, it was indicated that scientific data generated for the first time in the region regarding carbon sequestration issues. Moreover, the importance of strengthening the relations between institutes thanks to this effective collaboration was highlighted.

The members of Olzha-9 indicated the importance of this project in terms of promoting innovation and sustainable land use practices in their region. In addition, the future of these practices, their sustainability and the possibilities of replication in neighboring areas within and outside the Shetksy Rayon were discussed. Two principal business-oriented investments managed within Olzha-9, the creation of a slaughterhouse and a milk collection center, were presented by their representatives and their impacts in the local communities were discussed. In both cases, both activities have possibly supported an increase in income generation by providing a mechanism for local commercialization and diminishing human efforts necessary for sale of their products.

All results were broadly discussed during the workshop, generating interest in their impact by national authorities, for the potential for replication and for the possibilities of expansion into a broader scope, including carbon accounting for best practices and its contribution to reduce CO2 emissions from agriculture, as well as the capture of carbon by improved techniques. Authorities expressed to be very positively impacted by the results, the increase in carbon stored in soils due to better agricultural practices and its potential use, in the context of the recent GOK decision to ratify the Kyoto Protocol.

List of Beneficiaries and other Stakeholders met and interviewed during the mission

- i. ViceMinister Sadvakasova Eldana Makinovna – Ministry of Environmental Protection
- ii. Sholpan Moldakhmetova, Director DMP.
- iii. Talgat Kassymkhanov, Chief Accounting Consultant, DMP.
- iv. Aigherim Malik, PMU DMP
- v. Ryscali Saduakas, PMU DMP
- vi. Ashimov Yerlan M., General Director, Natige Dairy Plant (Karaganda)
- vii. Bulat Utkelov, Director of Kazakhstan Biodiversity Conservation Fund and former TTL (Astana)
- viii. Olzha-9 Association, nine members interviewed.
- ix. Konstantin Pachikin, Research Institute of Soil Sciences & Agro chemistry
- x. Nadiya Muratova, National Space Agency, National Center of Space Researches and Technologies.
- xi. Arman Baitassov, CIMMYT

Annex 7. Summary of Borrower's ICR and/or Comments on Draft ICR

ҚАЗАҚСТАН РЕСПУБЛИКАСЫ
ҚОРШАҒАН ОРТАНЫ ҚОРҒАУ
МИНИСТРЛІГІ



МИНИСТЕРСТВО ОХРАНЫ
ОКРУЖАЮЩЕЙ СРЕДЫ
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010000, город Астана, улица Орынбор, дом 8, Дом Министров
тел./факс: 8 (7172) 74-08-55

To: Mrs. Sebnem Akkaya
Country Manager
The World Bank, Country Office in
Kazakhstan

Subject: Implementation Completion Report for the Drylands Management Project

Dear Mrs. Sebnem Akkaya!

First, we would like to express our appreciation for the sustained support offered by the World Bank to our Government.

We have reviewed the Implementation Completion Report for the Drylands Management Project and would like to inform you that, overall, we agree with its findings and recommendations. We are pleased with the largely positive evaluation of the Project. Our Ministry would make all efforts possible for further development of sustainable land uses.

From our side, we would like to inform you that the Ministry has successfully finalized the transfer of the project assets to the project beneficiaries LLP Olzha-9.

We are looking forward to further mutual collaboration.

Yours sincerely,
Vice-Minister

Eldana Sadvakassova

085430

Сериялық нөмірііз бланк КҮШІ ЖОҚ. Бланк без серийного номера НЕДЕЙСТВИТЕЛЕН.

Annex 8. Comments of Co-financiers and Other Partners/Stakeholders

N/A

Annex 9. List of Supporting Documents

1. World Bank. No Data. Kazakhstan, Forest Sector in Transition: The Resource, the Users and Sustainable Use. 62 pp.
2. World Bank. Kazakhstan. Rangelands in transition. The resource, the users and sustainable use. 55 pp.
3. World Bank. 2004. Kazakhstan`s Livestock Sector, Supporting Its Revival. 136 pp.
4. World Bank Project Appraisal Document. 2005. Forest Protection and Reforestation Project. 105 pp.
5. Sustainable and environmentally sound land use in rural areas with special attention to land degradation. An issue paper. ASIA-PACIFIC FORUM FOR ENVIRONMENT AND DEVELOPMENT, EXPERT MEETING. 2003, Guilin, People`s Republic of China
6. Project_Contracts.xls subject to pre-review extracted from client connection.
7. Minutes of the Steering Committee, 2nd meeting - 2006 (in Russian), 4 pp.
8. Minutes of Protocol – Olzha 9 Training (in Russian), 2 pp.
9. Minutes of Meeting of the Steering Committee and The World Bank 2008 (in Russian), 5 pp.
10. List_foreign suppl..xls provided by the PMU
11. List of Project Beneficiaries with specific information (in Russian), 4 pp.
12. List of invasive species found in project sites. Russian version with English names, 5 pp.
13. List of assets purchased by the Project (in Russian), 5 pp.
14. List contracts by years.xls provided by the PMU
15. Letters of endorsement by Ministry of Agriculture and Ministry of Natural Resources and Environmental Protection / Republic of Kazakhstan
16. Kazak DMP Project Proposal (electronic file) dated 12 August 2002, 57 pp.
17. Kazakhstan Press Club, 2007c - Media Clippings (in Russian), 10 pp.
18. Kazakhstan Press Club, 2007b – Report (in Russian), 7 pp.
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<http://gefonline.org/projectDetailsSQL.cfm?projID=1244>
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24. Designated_Account.xls extracted from client connection
25. Category_Schedule.xls extracted from client connection
26. Business Plan prepared by Olzha 9 for the use of machinery – 2009 (in Russian), 8 pp.
27. BIDS.xls extracted from client connection

28. Aide-Memoire, Supervision mission, 03-14 December 2008
29. Aide-Memoire, Supervision mission, October 16-27, 2006
30. Aide-Memoire, Supervision mission, November 27 – December 7, 2007
31. Aide-Memoire, Supervision mission, May 27 – June 7, 2008
32. Aide-Memoire, Supervision mission, May 10-17, 2007
33. Aide-Memoire, Mid Term Review Supervision Mission, 16-27 October 2006
34. Aide-Memoire (Final Supervision mission, November 30 – December 11, 2009
35. 8-12-02 Kazak Dryland Cover Memo / Submission for Work Program Inclusion, 11 March 2002
36. “Drylands Management” Project Implementation Summary Report GEF TF 052161-KZ Grant. Ministry of Environment Protection (Translation from Russian – Final Report to the Bank).

