

**Farmers Foundation of Kazakhstan PF  
Community-Based Adaptation (CBA) Project Proposal**

**PROPOSAL SUMMARY**

- 1. Project Title:** Adaptation of Pastoral Cattle Farming of Lepsy Local Community to the Climate Change
- 2. Project Site:** South Pre-Balkhash, eastern boundary of Semirechye, southern part of sand massif Saryishikotrau  
Lepsy Village, Sarkand District, Almaty Oblast, Kazakhstan
- 3. Proponent:** Farmers Foundation of Kazakhstan  
51 Jandosov St., Almaty 050035, Office 710; tel./fax (727) 299 74 72, e-mail: [kazfermer@mail.ru](mailto:kazfermer@mail.ru)

Farmers Foundation of Kazakhstan is a non-profit organization founded under initiative of Farmers Association of Kazakhstan. The entity was registered on 15 February 1996. The foundation employs local high-skilled professionals. The staff members have practical work experience and were trained in the US, Germany and Israel. For case-by-case projects and tasks the company involves specialists of various profiles.

For the period of operation the Foundation has implemented over 40 farm support programs and projects throughout Kazakhstan.

The farmers and rural inhabitants are provided with a set of consulting services in legal, financial, economic, technological and environmental aspects. The Foundation organizes various workshops including field events in different areas of the country.

**4. Project Objective:** To prevent the adverse consequences of climate change at the sand pasture ecosystems of Semirechye

**5. Authorized Representative:** Vladimir Levin, tel./fax: (727) 299 74 72, e-mail: [kazfermer@mail.ru](mailto:kazfermer@mail.ru)

**6. Cooperating organizations:** Arai Youth Center Private Fund, Lepsy Village, Local Community of Lepsy, tel./fax: (728 43) 2 15 43, e-mail: [aria@list.ru](mailto:aria@list.ru)

**7. Start-Up Date:** February 2009

**8. Project Period:** 24 months

**9. Total Project Cost:** US\$ 103977

**10. Amount Requested:** US\$ 48030

**Local Input:** US\$.55947

**11. Brief Project Description**

The project will involve the local community of Lepsy Village located in the area of northern deserts, southern edge of sand massif Saryishikotrau. The local community number 3100. Their main livelihood is livestock products. Cattle farming is based on pasture forage. The community owns 2265 heads of cattle and 4700 heads of sheep and goats. The total land area maintained by the local community contains 6379 ha including hayfields (72 ha) and pastures (6307 ha). For the time being the community uses about 2000 ha of pastures. The soil cover is represented by light gray and gray-brown soils. Sands account for 60% the area. The typical species of pasture ecosystems are as follows: Artemisia, Agropyron, Cochin, Ceratoides, Ceratocarpus, Carex etc. The potential pasture productivity is estimated at 500 kg/ha. The current productivity of the grazing lands does not exceed 150 kg/ha. The main reason of degradation is the improper use of pastures.

The degradation of pastures in Lepsy tends to grow. The pastoral conditions are worsened by Jungar Gates located across the project site that are known to generate strong hot dry winds coming from Takla-Makn Desert (China) thus having additional adverse impacts that are going

to be manifested more intensively under the climate change conditions and the existing land tenure practices.

The above objectives will be accomplished based on the project outcomes as follows:

1. Environmentally sound grazing loads on the pastures that will be reduced by 35-40% as compared to those recommended;
2. Expansion of the existing pastures by optimizing water management;
3. Employment of the new rangelands that are currently unused and arrangement of seasonal pasture rotation.

## 1.0. Rationale

### 1.1. Community/Ecosystem Context

The ecosystem of the project site (Lepsy Village) is represented by hilly sands with wheat grass and cypress vegetation. The yield of dry biomass ranges from 4.6 to 5.3 c/ha. According to the soil map of Kazakhstan, the soils of the project site are the sand desert soils and fall under Balkhash Sand Area. The recent 2-3 years are characterized by intensified degradation of land and vegetation in connection with the climate aridization. Sand soils and polymorphous vegetation represent a fragile ecosystem exposed to degradation induced by the climate change to aridization.

The local community of Lepsy numbers 3100 inhabitants, 2070 adults including 54% women. On average, the target population are aged 46 years. Kazakhs represent about 90% of the population. The main source of livelihood is animal husbandry (cattle, sheep and goats). The livestock products are sold or consumed internally by the cattle owners. The outgoing migration within the last 3 years is minimal. The stock has doubled for said period as compared to 2005.

### 1.2. Climate context

The climate of Lepsy is continental with a marked cold winter period and hot, often torrid, summer. Naturally the climate is very dry. Winter period lasts 90-110 days. The air masses are brought to Pre-Balkhash Climate Area from Arctic and Siberia (continental); Atlantic (sea air) and Iraq (continental tropical air). Snow-break and warming is associated with southeastern winds. The maximal wind velocity is 10 m/sec. in winter; 5 m/sec. in spring; 7.5 m/sec. in summer and 6,5 m/sec. in autumn, i.e. may cause sand erosion in any season.

Draught is the main climate risk of the project site. The average annual temperature is estimated at +5,9<sup>0</sup>C; the highest temperature in July reaches +43<sup>0</sup>C; the lowest temperature in January is -44<sup>0</sup>C. The non-frost period lasts from June to August ranging between 90 and 108 days. The annual temperature range between the absolute lowest and absolute highest makes 87<sup>0</sup>C.

The baseline risks are the draught and the level of precipitation. The draught is reported for 8 of 10 years. The dry period is found to expand in recent years. The average annual precipitation (for the period of 1891-1950) is estimated at 180mm. Within the last 20 years the average annual precipitation level has dropped to 168mm. While the atmospheric draughts in the period between 1925 and 1954 made 56, the last years showed the expansion to 90 and more days.

In recent years, notably starting from 2005, the climate has been changing to more intensive aridity. In 2008 precipitation were not registered from March to November, inclusive. In sands vegetation was preserved due to moisture condensation, while in flat areas where the roots haven't reached the ground waters, vegetation was lost. Ephemeral plants did not mature and dried out before the hot period. The dry hot winds are increasing from the south. All said factors indicate the upcoming process of the climate change. For desert zone of Kazakhstan is typical is 30-40 dry hot winds days in the summer. But according to observations of local community members this indicator is increased in almost two times during last 20-30 years

Projected climate change impacts for Kazakhstan as a whole can be summarized as follows:

- **Temperature rise:** According to the "medium" GHG emission scenario of Kazakhstan (P-50) the expected change of average annual temperature by 2030 will be: +1.4°C (ranging from 1.3 to 1.9°C); by 2050: +2.7°C (ranging from 2.3 to 3.5°C); by 2085: +4.6°C (ranging from 3.8 to 5.9°C).

- **Changes in precipitation and the shift of natural zones:** Rainfall isohyets are projected to move northwards by as much as 200-300km, depending on GHG emission scenario, and evapotranspiration zones are expected to move northwards by a similar amount. This will lead to increased aridity throughout the country.

### 1.3. Impacts Context

The community's livelihood is mainly based on the privately made livestock products. In turn, the stock condition, their productivity and quality of the products rely directly on the forage base. Since pasture forage accounts for at least 70% in the growing ration the climate change impacts not only the ecosystem but also the sources of livelihood. Adequately fattened cattle may be sold at the market price of US\$600 and higher while non-adequately grazed animals are sold at US\$400. Well-fed local cows can produce 6-7 liters of milk per day, while the current milk yield of underfed cows makes only 3-4 liters. So, the local community of Lepsy manifests the chain relations: climate - vegetation - cattle - livestock products - living conditions of cattle owners. The droughts reported in recent years had an adverse impact on this chain and affected the living standard of local inhabitants.

Pasture ecosystems were adapted to the previously existing quantity of precipitation and its distribution. The drop of precipitation level (quantity) and the rise of air temperature have aggravated the deficit of soil moisture thus affecting the dominant plant of pastoral vegetation, Artemisia, as well as ephemeral species and ephemeroids. The potential ecosystem crop yields of 500-600 kg/ha (dry biomass) at previously existing steady precipitation levels and temperatures are reduced by draughts to 150-200 kg/ha.

### 1.4. Project Approach

Historically sand massif Saryishikotrau containing the proposed project site was used as pasture. Today, despite the existing difficulties connected primarily with the climate these lands are significant for agriculture. The project activities will incorporate the transfer of part of cattle owned by the local community to the new rangelands; reduction of the grazing load on a unit land area due to optimization of pastoral water supply. The animals will be transferred to the new remote rangelands and maintained for the entire grazing period subject to the rotation arrangements. Said activities will reduce the risks of climate change.

Climate Change Projections	Impacts on the Community and Ecosystems	Project Activities Addressing the Climate Change Impacts
1. Extended period of draughts	Reduction of forage crop yield leading to decline of cattle productivity	To increase the grazing area for each head; to transfer the cattle to the restored and previously unused grazing lands; pasture watering and other activities that will conserve the crop yield, preserve the life of pastures and increase the yield of milk, meat and wool
2. The growth of risks due to the drop of annual precipitation level	Impact on the growth of forage plants; modification of pastures; the loss of significant forage species.	The pastures will be used depending on the conditions of ephemeral and indigenous vegetation; the grazing arrangements will start with the landscape sites most exposed to drying with gradual movement to the hollows and depressed areas with the highest moisture content
3. Inadequate water supply	Concentration of cattle near the existing water sources (wells); degradation of pastures; reduction of ecosystem productivity; decline in the livestock productivity	Optimization of the pastoral water supply system will enable cattle distribution on watering sites, conserve the productivity of pastoral ecosystems and reduce the factors affecting the normal feeding and livestock products

The community will benefit from the more sustainable farming practices through the rational pastoral lands tenure and conservation of the yield of pastoral ecosystems dependent on the climate change. The proposed activities will enable to reduce such vulnerability and reach the sustainable traditional cattle farming at the project site. The optimal practices to be identified in order to reduce the climate change impacts on the sandy rangelands will be used for replication in adjacent areas and other sand massifs of Kazakhstan totaling 31.2 million ha. The preliminary discussions with the community members indicate good LC awareness of the climate change risks. People mentioned the decline of pasture productivity, the drop of water level in Lepsy, very low cattle productivity in connection with the long-lasting (for many years) draught, lack of rains and temperature rise.

## **2.0. Community Ownership**

### **2.1. Project Formulation**

The general project concept was formulated as a result of discussions with the cattle owners and agricultural specialists living at the project site (livestock specialists, veterinary doctors). At the planning stage the community was involved in discussions of all the project activities. The proponent explained the existing factors of climate change and their impact on the wealth of cattle owners. Close interaction at the meetings has raised the mutual interest and was useful in addressing the general and particular project-related issues.

### **2.2. Project Implementation**

The project will involve on a full-time basis the owners of 300 heads of cattle and 2000 heads of sheep and goats to be moved to the remote rangelands (25-30 km away from the village). The community members to be involved in the project starting from the concept formation through completion will ensure the transparency of the project activities and the internal evaluation of progress by the cattle owners.

### **2.3. Phase-out Mechanism, Sustainability**

The activities to be commenced and finalized by the project will be expanded by the local community members owing to the outcomes to be attained. The accurate implementation of the project activities will enable to reduce the adverse impacts of the climate change and develop the sustainable project activity upon completion. Public, production, social and scientific capacities will be accumulated by the project and used by the local community both during and after the project.

## **Proponent Description**

### **Organizations Background and Capacities**

Farmers Foundation of Kazakhstan is a non-profit organization established under initiative of the Farmers Association of Kazakhstan. The entity was registered on 15 February 1996. The foundation employs local high-skilled professionals. The staff members have practical work experience and were trained in the US, Germany and Israel. For case-by-case projects and tasks the company involves specialists of various profiles.

For the period of operation the Foundation has implemented over 40 farm support programs and projects throughout Kazakhstan.

The farmers and rural inhabitants are provided with a set of consulting services in legal, financial, economic, technological and environmental aspects. The Foundation organizes various workshops including field events in different areas of the country.

The Foundation developed and published 30 brochures and booklets with 300-2000 circulation dedicated to day-to-day practical activities of farms. The brochures are disseminated among the farmers at the workshops, meetings, exhibitions and other social events.

From 1998 to 2001 the Foundation was actively involved in the demonstrational environmental project «Zhanartu» focused on the biodiversity restoration and desertification combat in the bottom land of Syrdarya (Pre-Aral Area). The project was aimed at the restoration of natural pastoral vegetation on degraded above-the-bottomland areas near Zhangeldy Village, Otrar District, South-Kazakhstan Oblast. The partners to the project were Zhuldyz farm and the local

community. The project was successfully accomplished. For the experiences gained from Zharnartu project Farmers Foundation of Kazakhstan was awarded the International Competition Certificate UN-HABITAT, Dubai, UAE, «The Best Environmental Improvement Experience of 2002».

Since 2002 the Foundation has been actively interacted with EuropeAid Interstate Project/TACIS of the West Tien-Shang Biodiversity Conservation.

Working with TACIS to establish the independent crediting system in 1999 Farmers Support Foundation was set in Uralsk that issues micro-credits to farmers and rural businesses.

At the end of 2004 and the first half of 2005 an economic agricultural production development study was performed upon request of the Institute of Ecology and Sustainable Development under GTZ-CCD project in three rural counties of Balkhash District, Almaty Oblast. The recommendations have been formulated to improve the farms' operations and increase their earning power.

Upon request of EuropeAid project «Regional Small and Medium Size Business Development in Aktobe Oblast » a series of 6 workshops were organized in 2005 in Alga and Martuk districts dedicated to integration development and cooperation. The brochure "Farmer Cooperative and How to Establish It" was published in Russian and Kazakh, 500 copies.

In 2006 – 2008 Farmers Foundation of Kazakhstan was involved in the umbrella project «Development of the Program-Based Approach to Sustainable Pastoral Management in Various Natural-Climatic Zones of Kazakhstan». The project selected 10 rural communities from 6 oblasts to test various approaches to the restoration of traditional pastoral practices in various natural environments. The outcomes of the rural projects made the basis of recommendations for the rational and sustainable pastoral management. The project outputs were presented and reviewed at the round table session in the Ministry of Agriculture and were highly rated. The project-related information was disseminated by the Ministry of Agriculture all over Kazakhstan.

It may be noted from the other attainments that Farmers Foundation of Kazakhstan was one of the two Kazakh NGO's that have been officially accredited by Global Environment Facility (3 June 2002).

## 4.0. Project Description

### 4.1. Objectives, Outcomes and Planned Outputs

**Project Objective:** To prevent the adverse consequences of climate change at the sand pasture ecosystems of Semirechye

**Outcome 1: To restore the traditional seasonal pastoral management as the method to reduce near-village pastures (co-financing)**

- Output 1.1. Optimized pasture water supply through rehabilitation of 7 traditional wells
- Output 1.2. Ensuring optimal load on the new pastures through the agreements of rational pastoral management between the cattle owners
- Output 1.3. Implementation of remote pastoral management practices to reduce overgrazing at near-village rangelands

**Outcome 2. Climate Change Risks integrated into Rangeland Management and Livestock Production (co-financing)**

- Output 2.1. Decision made by Oblast Land Management Committee on the allocation of rangelands to Lepsy local community
- Output 2.2. Determination of the fodder yield of pastures at each seasonal site before and after the grazing period
- Output 2.3. Estimation of stock for each seasonal rangeland site (to set the load rate based on the climate change)
- Output 2.4. Herd formation for remote grazing
- Output 2.5. Decreasing of grazing pressures on near village pastures

**Outcome 3. To build the LC capacity of resisting the climate change risks (aridization) (co-financing and CBA)**

- Output 3.1. Developing the rational pastoral strategy arrangements in view of the rotation of seasonal rangeland sites

- Output 3.2.                   **Creation of infrastructure on remote pastures**
- Output 3.3.                   LC members are trained in the traditional water and pastoral resources management practices
- Output 3.4.                   Improved LC awareness through training and enhanced capacities of implementing the climatically-sustainable cattle farming practices
- Outcome 4. Lessons learned from project implementation captured and disseminated (CBA)**
- Output 4.1.                   Advocacy and dissemination of the pastoral resources management strategy on the local, district and oblast levels.
- Output 4.2.                   Monitoring and Evaluation

## 4.2. Timetable

Objectives and Activities	2009												2010											
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
<b>Outcome 1: To restore the traditional seasonal pastoral management as the climate change adaptation method</b>																								
<i>Output 1.1.</i> Optimized pasture water supply through rehabilitation of 7 traditional wells																								
<i>Output 1.2.</i> Ensuring optimal load on the new pastures through the agreements of rational pastoral management between the cattle owners																								
<i>Output 1.3.</i> Implementation of remote pastoral management practices to reduce overgrazing at near-village rangelands																								
<b>Outcome 2. Climate Change Risks integrated into Rangeland Management and Livestock Production</b>																								
<i>Output 2.1.</i> Decision made by Oblast Land Management Committee on the allocation of rangelands to Lepsy local community																								
<i>Output 2.2.</i> Determination of the fodder yield of pastures at each seasonal site before and after the grazing period																								
<i>Output 2.3.</i> Estimation of stock for each seasonal rangeland site (to set the load rate based on the climate change)																								
<i>Output 2.4.</i> Herd formation for remote grazing																								
<i>Output 2.5.</i> Decreasing of grazing pressures on near village pastures																								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
<b>Outcome 3. To build the LC capacity of resisting the climate change risks (aridization)</b>																								



### 4.3. Risks and Barriers

Risks and Barriers	Measures to Remove Barriers and Mitigate Risks
Low level of awareness of the cattle owners of the project activities	The project will ensure continuous demonstration of the outcomes and their dissemination. The new participants (inhabitants of Lepsy Village) will be involved in the project activities
Low efficiency of the new technology due to: - inadequate LC activity; - inadequate understanding of local authorities	1. The work plan will be developed for the project activities. 2. The monitoring will be performed based on the parameters reflecting the project efficiency. 3. The project efficiency will be monitored and the adjustments will be made where necessary
Fluctuations of exchange rates	All the contracts and accountability will be presented in the national currency. The exchange and pricing risks connected with the procurement of materials will be exposed to internal audit.

### 4.4. Monitoring and Evaluation Plan

The project performance will be evaluated at the planning stage, at mid-term and at the end of the project.

#### Adaptation Capacities

Meetings with the local community members involved will be organized during the project. 3 such meetings are planned (the first meeting will be organized at the end of the grazing period (2009); the second and the third meetings – in 2010, at the beginning and upon completion of the grazing period). Such meetings are envisaged in the project activities. The indicator reports will be presented in the second and the last reporting periods.

#### Global Environmental Benefits

1. The project will use seasonal pasture rotation preventing degradation of sands. This indicator will be specified in the second reporting period. Increasing of Vegetation coverage due to vegetation recovering near village pastures

2. Five thousand ha will be managed on a sustainable basis as a result of the project. Such indicator measurement will be mentioned in the last reporting period.

3. The technology of seasonal use of remote pastures will be introduced

3. The new norms for grazing pressures for aridized desert pastures will be identified. The grazing load rates for sandy pastures will be lowered in view of the climate change. This indicator will be mentioned in the first reporting period.

#### Adaptation Indicators

The project will contribute to adaptation according to the UNDP indicators as follows:

1. Percentage change of the population dependent on natural resources that have access to the alternative or additional livelihoods;

2. Efficiency of intervention of the sustainable environmental management in the provision of livelihoods and protection of natural resources.

The following measurements of such indicators are envisaged:

1. Ten percent of able-bodied population will have access to the sustainable pastoral grazing practices;

2. 10-12% growth of live weight of the alternatively grazed cattle as compared to the existing pastoral management practices.

#### 4.4.1. Initial VRA Analysis

A group of project consultants visited Lepsy Village and organized the workshop (25 November 2008) for the initiative group of local inhabitants to be involved in the adaptation project. The workshop was attended by 14 participants including one woman, one farmer and 9 cattle owners. The issues as listed below were discussed at the workshop:

1. How serious is the climate change impact on your livelihood?
2. How efficient are the methods that are currently used address the climate risks?
3. How will intensified draught affect your livelihood?
4. How prepared are you to respond to the climate change to sustain your well-being (livelihood)?
5. What are the barriers to implementing the climate change risk mitigation activities?
6. Give assessment to your capacities and willingness to support the project activities?
7. Give assessment to to your capacities and willingness to support the project activities upon completion?

VRA rating (scores) are uniform, the differences in the participants' responses is connected with the number quantity of stock owned by the participants, land areas and agricultural equipment owned by the community members.

<b>Vulnerability reduction reporting form</b>	<b>Adjusted score</b>	
Indicator 1	9,7	0,3
Indicator 2	2,0	2,0
Indicator 3	7,7	2,3
Indicator 4	8,8	8,8
Indicator 5	5,9	4,1
Indicator 6	9,8	9,8
Indicator 7	9,6	9,6
<b>Total score, VRA</b>	<b>7,64</b>	<b>5,27</b>

All VRA tables are provided in the annex.

#### **4.5. Project Management**

##### **4.5.1. Management Structures**

Farmers Foundation of Kazakhstan is the main project stakeholder. The Foundation employs skilled consultants in the fields of pastoral management, agricultural ecology and NGO and LC capacity building.

Vladimir Levin, the manager, has an extensive experience in environmental projects. The project team also includes Ilya Alimayev, PhD with his valuable practical experience in the field of conservation and rational use of pastures, and Gulnar Bekturova, the Environmental Researcher who has been dealing with agricultural ecology problems for many years.

##### **4.5.2. Relationships and Responsibility of the Proponent and Project Partners**

ARAI Youth Center NGO is the local project partner with his leader Bolatbek Shalov. The center was established in 2002. It deals mainly with public training, promotion of the village self-aid groups, business training for women etc.

Bolatbek Shalov is a veterinary doctor. He has experience in dealing with the rural community and various groups (women, unemployed etc.). In addition, Bolatbek whose father was an established herdsman was also dealing with cattle grazing.

The rural NGO is based in the village akimat, has a telephone line, fax and access to e-mail.

An initiative group of farmers and cattle owners who are interested in the project promotion have been established for the purpose of successful project implementation.

The project idea is also supported by the local authorities represented by the village akim and Lepsy Forestry Management Department.

## 5.0. Project Cost and Other Source of Funding

### 5.1. Total Project Cost and Amount Requested

		Item (description)	CBA Input, \$	Proponent's Input, \$		Arai's input, \$		Total amount, \$
			In Cash	In Cash	In Kind	In Cash	In Kind	
<b>Out- come 1</b>	<b>Output 1.1</b>	<b>Optimization of pastoral water supply (co-financing)</b>	<b>0</b>	<b>0</b>		<b>9230,0</b>		<b>9230,0</b>
	Activity 1.1.1	Identification of wells conditions and calcula- tion of necessary expend- itures for wells recover- ing	0	0		300,0		
	Activity 1.1.2	Purchasing of materials for wells repairing (beton rings-28 items, metal and etc (1 well- x 990\$)	0	0		6930,0		
	Activity 1.1.3	Transportation of con- struction materials for wells and watering sites	0	0		600,0		
	Activity 1.1.4	Repair of 7 wells and wa- tering sites (labor)	0	0		1400,0		
	<b>Output 1.2</b>	<b>Ensuring optimal load on the new pastures through the agreements of rational pastoral management between the cattle owners (co-financing )</b>	<b>0</b>	<b>0</b>		<b>3200,0</b>		<b>3200,0</b>
	Activity 1.2.1	Work of local coordina- tors in Lepsy and Kokte- rek villages <ul style="list-style-type: none"> <li>• With LC mem- bers</li> <li>• Collecting of li- vestock in one group</li> <li>• Organization of meetings</li> </ul>	0	0		2000,0		
	Activity 1.2.2	Work with local authori- ties	0	0		1200,0		
	<b>Output 1.3</b>	<b>Implementation of re- mote pastoral manage- ment practices to re- duce overgrazing at near-village rangelands (co-financing )</b>	<b>0</b>	<b>918,0</b>		<b>1820,0</b>		<b>2738,0</b>
	Activity 1.3.1	analysis of work neces- sary for remote pastures infrastructure creation	0	0		600,0		
	Activity 1.3.2	LC training and workshop expenses	0	918,0		0		
	Activity 1.3.3		0	0		500,0		

	Activity 1.3.4	Office rental in Lepsy for the project's works	0	0		720,0		
Out-come 2	<b>Output 2.1</b>	<b>Decision made by Ob-last Land Management Committee on the allo-cation of rangelands to Lepsy local community (co-financing )</b>	<b>0</b>	<b>600,0</b>		<b>600,0</b>		<b>1200,0</b>
	Activity 2.1.1	To agree with authorities the issue of remote pas-ture allocation for LC	0	0		200,0		
	Activity 2.1.2	Preparation of documents for pastures allocation	0	200,0		100,0		
	Activity 2.1.3	Creation of pasture map	0	200,0		100,0		
	Activity 2.1.4	Transportation for consul-tation with local authori-ties	0	200,0		200,0		
	<b>Output 2.2</b>	<b>Determination of the fodder yield of pastures at each seasonal site before and after the grazing period (co-financing )</b>	<b>0</b>	<b>2400,0</b>		<b>0</b>		<b>2400,0</b>
	Activity 2.2.1	Remote pastures condi-tions research	0	1200,0		0		
	Activity 2.2.2	Env. Assessment of project territory	0	1200,0		0		
	<b>Output 2.3</b>	<b>Estimation of stock for each seasonal rangel-and site (to set the load rate based on the cli-mate change) (co-financing )</b>	<b>0</b>	<b>3600,0</b>		<b>0</b>		<b>3600,0</b>
	Activity 2.3.1	Identification of grazing norms for project territory	0	1600,0		0		
	Activity 2.3.2	Development of scheme for seasonal grazing on project territory	0	2000,0		0		
	<b>Output 2.4</b>	<b>Herd formation for re-mote grazing (co-financing )</b>	<b>0</b>	<b>500,0</b>		<b>19070,0</b>		<b>19570,0</b>
	Activity 2.4.1	Development of recom-mendation for identifica-tion of optimal number of livestock for near village pastures	0	500,0		0		
	Activity 2.4.2	Work with local popula-tion. Selection of she-pards, its training. Moving of livestock to remote pastures	0	0		2200,0		
	Activity 2.4.3	Construction of hense on remote pastures (wood-670 USD, work 600USD, supply 1600 USD, Shep-ard fee for projects life cycle 14000 USD	0	0		16870,0		
	<b>Output</b>	<b>Decreasing of grazing</b>	<b>0</b>	<b>500.0</b>		<b>700,0</b>		<b>1200,0</b>

	<b>2.5</b>	<b>pressure on near village pastures.</b>						
	Activity 2.5.1	Moving of 25% of livestock from near village pastures to remote.	0	0		700,0		
	Activity 2.5.2	Identification of vegetation coverage density of near village pastures	0	500,0		0		
<b>Outcome 3</b>	<b>Output 3.1</b>	<b>Developing the rational pastoral management arrangements in view of the rotation of seasonal rangeland sites (CBA)</b>	<b>1200,0</b>	<b>0</b>		<b>0</b>		<b>1200,0</b>
	Activity 3.1.1	Collection of information on remote pastures productivity	400,0	0		0		
	Activity 3.1.2	Assesment of forage production capacity of different zone of remote pastures in connection to the wells.	400,0	0		0		
	Activity 3.1.3	Development of seasonal grazing scheme (pasture rotation) around the wells.	400,0	0		0		
	<b>Output 3.2</b>	<b>Development of infrastructure on remote pastures</b>	<b>7120,0</b>	<b>0</b>		<b>0</b>		<b>7120,0</b>
	Activity 3.2.1	Provision of herdsmen with water pumps to supply water for the cattle	1300,0	0		0		
	Activity 3.2.2	Provision of herdsmen with yurts (nomads' tents)- 2 items . X 1200, power generators – 2 items . X 450, transportation- 400 for the long-term work at pastures	3700,0	0		0		
	Activity 3.2.3	Purchase of net (1550\$) and building (cement - 170; transportation -400) enclosures for the cattle night maintenance	2120,0	0		0		
	<b>Output 3.3</b>	<b>LC members are trained in the traditional water and pastoral resources management practices</b>	<b>1660,0</b>	<b>0</b>		<b>0</b>		<b>1660,0</b>
	Activity 3.3.1	Conduction of field days (4 times . X 415\$)	1660,0	0		0		
	<b>Output 3.4</b>	<b>Improved LC awareness through, and enhanced capacities of implementing the climatical-sustainable cattle farming practices</b>	<b>2400,0</b>	<b>0</b>		<b>0</b>		<b>2400,0</b>
	Activity 3.4.1	Development, printing and distribution of information sheets in Russian and Kazakh	500,0	0		0		
	Activity 3.4.2	Development and printing of brochure in Russian and Kazakh	500,0	0		0		

	Activity 3.4.3	Strengthening of technical base of local community for increasing of their capacity to use info about CC risks. (PC, printer)	1400,0					
	<b>Output 4.3</b>	<b>Monitoring, advocacy and dissemination of the pastoral resources management strategy on the local, district and oblast levels</b>	<b>1850,0</b>	<b>0</b>		<b>0</b>		<b>1850,0</b>
	Activity 4.3.1	Conducting of demonstration workshop on project result	850,0	0		0		
	Activity 4.3.2	Monitoring and evaluation	1500,0	0		0		1500,0
		<b>Project Management (CBA-58%, co-financing – 42%)</b> - project manager - project coordinator ; - accouter ; - local coordinators in 2 villages (remuneration of the project manager, coordinator and accountant)	<b>16160,0</b>	<b>6000,0</b>		<b>5600,0</b>		<b>27760,0</b>
		<b>Experts (3)</b>	<b>2400,0</b>	<b>0</b>		<b>0</b>		<b>2400,0</b>
		<b>Travel expenses for consultants: 300\$ x 7 times x 2 years</b>	<b>4200,0</b>	<b>0</b>		<b>0</b>		<b>4200,0</b>
		<b>Accommodation and boarding for consultants (33,3\$ x 2 persons x 4 days x 7 times x 2 years)</b>	<b>3730,0</b>	<b>0</b>		<b>0</b>		<b>3730,0</b>
		<b>Travel expenses for local coordinators</b>	<b>1090,0</b>	<b>0</b>		<b>0</b>		<b>1090,0</b>
		<b>Consumables</b>	<b>1000,0</b>			<b>0</b>		<b>1000,0</b>
		<b>Communications, Internet</b>	<b>2400,0</b>	<b>600,0</b>		<b>600,0</b>		<b>3600,0</b>
		<b>Computer maintenance</b>	<b>600,0</b>	<b>0</b>		<b>0</b>		<b>600,0</b>
		<b>Banking fees</b>	<b>720,0</b>	<b>0</b>		<b>0</b>		<b>720,0</b>
		<b>Contingencies</b>	<b>1500,0</b>	<b>0</b>		<b>0</b>		<b>1500,0</b>
		<b>PROJECT TOTAL</b>	<b>48030</b>	<b>15118</b>	<b>0</b>	<b>40829</b>	<b>0</b>	<b>103977</b>

Annex

**Vulnerability Reduction Assessment H-Form  
For Lepsy Project**

<b>Reasons of Negative Answer</b>	1. How serious is the climate change impact on your livelihood?	<b>Reasons of positive Answer</b>
1. 2. 3.	<p>0                      <b>9,7</b>                      10</p> <hr/> <p>How can the rating be improved?</p> <p>The transfer of cattle to remote pastures</p> <p>Pasture watering</p>	<p>1. The drop of precipitation</p> <p>2. The rise of summer temperature</p> <p>3. Dust storms</p> <p>4. Lowering of water level in Lepsy</p> <p>5. Growing frequency of fires</p>

<b>Reasons of Negative Answer</b>	2. How efficient are the methods that are currently used address the climate risks?	<b>Reasons of positive Answer</b>
1. Cattle is grazed on the same degraded rangelands 2. The lack of LC initiatives 3. The lack of material and technical basis 4. The lack of winter forage (hay)	<p>0                      <b>2,0</b>                      10</p> <hr/> <p>How can the rating be improved?</p> <p>To unite the cattle owners in order to address the problem on a joint-effort basis</p> <p>To establish a service cooperative</p> <p>To seek the sources of external funding (international, provate, governmental)</p>	<p>1.</p> <p>2.</p> <p>3.</p>

Reasons of Negative Answer	3. How will intensified draught affect your livelihood?	Reasons of positive Answer
1. 2. 3.	0 <b>7,7</b> 10	
	How can the rating be improved?  To expand watered rangelands  To develop the remote and more productive rangelands  To reduce the grazing load by expanding the watered rangelands  To extend the grazing period in order to reduce the hay needs	1. Reduction of hay production output and increase of hay price  2. Downsizing the area of irrigated meadows for haymaking  3. Deterioration of cattle health  4. Reduction of rangelands productivity

Reasons of Negative Answer	4. How prepared are you to respond to the climate change to sustain your well being (livelihood)?	Reasons of positive Answer
1. 2. 3.	0 <b>8,8</b> 10	
	How can the rating be improved?  1. To address the problem on the joint-effort basis using the internal resources  2. to strengthen interaction of LC members with the local authorities	1. Availability of transport facilities and agricultural equipment  2. Awareness of the adverse impact of climate change on LC's well being  3. Understanding the need of development of remote and productive rangelands

Reasons of Negative Answer	5. What are the barriers to implementing the climate change risk mitigation activities?	Reasons of positive Answer
1. Some farmers have ma-	0 <b>5,9</b> 10	
		1. The lack of legal frame-

<p>terial and technical base</p> <p>2. Temporary use of state-owned remote pastures without permissions</p> <p>3. The use of household plots by some LC members to make additional revenues</p>	<p>How can the rating be improved?</p> <p>1. To raise public attention to the need of adopting the law on household</p> <p>2. To raise awareness and leagl literacy in respect of the climate change risks</p> <p>3. To seek the ways to cooperation</p>	<p>work</p> <p>2. Passive public</p> <p>3. Conflict of interest between state land users and cattle owners</p>
---	--	--

<b>Reasons of Negative Answer</b>	6. Give assessment to your capacities and willingness to support the project activities?	<b>Reasons of positive Answer</b>
1.	0 <b>9,8</b> 10	1. Understanding of benefits of the joint use of remote watered pastures
2.  3.	<p>How can the rating be improved?</p> <p>1.</p> <p>2.</p> <p>3.</p>	<p>2. Willingness to contribute to the project activities</p> <p>3. Improvement of the village environment due to reduction of grazing load on the near-village pastures</p>

<b>Reasons of Negative Answer</b>	7. Give assessment to to your capacities and willingness to support the project activities upon completion?	<b>Reasons of positive Answer</b>
1.	0 <b>9,6</b> 10	1. The mechanism will be

	<p>How can the rating be improved?</p> <p>1. To provide the guaranty of safety and long-term use of the material base to be procured by th eproject</p> <p>2. To involve th elocal inhabitants in the project and post-project activities to mitigate the climate change risks</p> <p>3. Broad awareness of cattle owners in the neighboring villages on the project outcomes and the climate change adaptation practices</p>	<p>developed to ensure the mitigation of climate change impacts on LC live-lihoods</p> <p>2. A strong NGO capable of ensuring the sustainability of activities after the project</p> <p>3. Development of infrastructure ensuring its long-term functioning</p>
2.		
3.		