

Farmer and Entrepreneur Support Fund PF CBA Project Proposal

PROJECT SUMMARY

1. **Project Title:** Forest Protection Belts to Combat Dry Hot Winds, Retain Snow and Moisture as an Effective Method of the Climate Risks Reduction
2. **Project Site:** Shyrkyn Village, Sairam District, South-Kazakhstan Oblast, Republic of Kazakhstan
3. **Proponent:** Farmer and Entrepreneur Support Fund PF
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Farmer and Entrepreneur Support Fund PF is a public non-profit organization founded in 1997 under TACIS project funded by International Mercy Corps.

The fund is one of the first entities in the South Kazakhstan to provide consulting and financial assistance to the farmers and entrepreneurs. The Fund's mission is to promote development and strengthening of the agricultural sector, small and medium-size business in South-Kazakhstan Oblast.

4. **Project Objective** – to reduce the land degradation risks connected with climate change risks including the rise of summer temperature, dry hot winds and the loss of winter precipitation.

5. **Authorized Representative:** Rais Karaibragimov, Fund Manager.

6. **Cooperating Organizations:** Kara-Kazim Production Cooperative, Sairam District, South-Kazakhstan Oblast.

7. **Start-Up Date:** 1 March 2009

8. **Project Period:** 24 months

9. **Total Project Cost:** \$116,415

10. **Amount Requested:** \$50,000 (Note: the grant has been received in the sum of \$2,000)

Local Input: \$11,200

Partners' Input: \$55,215 – project co-financing by Kara-Kazim Production Cooperative

11. **Brief project description**

According to the long-standing inhabitants and agriculture specialists, the climate change is seen in reduction of soil moisture. It leads to the shrinkage of pastoral vegetation cover, reduction of the agricultural crop yield thus aggravating the problem of the LC social-economic standing. The local inhabitants face difficulties due to frequent dry hot winds that dry out soil. The soil is exposed to the wind erosion and destroys the upper fertile layer.

Therefore, the progressive warming and intensified dry hot winds will further reduce the soil moisture, strengthen erosion and bring about dust storms. The adverse effect was made by the total woodcutting that took place in the period of reform. The outbreak of energy crisis also forced the inhabitants cut trees.

There are also baseline environmental problems which amplify vulnerability to climate change. South-Kazakhstan Oblast has the largest number of farms in the country. Those are mainly the small farmers operating on small fields. There are few specialists amongst the farmers and there is no any smoothly running production arrangement. The farmers often allow overgrazing and take no due care of future pasture maintenance. Baseline environmental problems also include steppe fires that often break out and deteriorate hundreds of hectares of irrigated and pastoral lands.

From year to year winter precipitation is low. In early spring the temperature rises quickly, the snow melts and the root-forming soil layer is not saturated with moisture. The rise of air temperature rapidly reduces the content of soil moisture. It in turn has a negative impact on agriculture: low grass stand impedes livestock farming, and the loss of moisture reduces the yield of agricultural crops.

One of the reasons of loss of soil moisture is the small number of forest protection belts around Shyrkyn Village. The village is located in the area of strong winds and is exposed to Shakpak wind blowing from the northeast. The forest protection belt of fruit trees will help the local inhabitants combating the wind erosion, retaining the snow and reducing the wind velocity. The project activities will be a substantial contribution to combating climate-driven land degradation and restoration of land farming.

The forest protection belt will be composed of apricot, apple, walnut, pistachio and peach to be planted on the territory of Kara-Kazim Production Cooperative located in Shyrkyn Village. The fruit trees will be planted in the area of 100 ha in four lines: 1000 walnut trees, 1000 apricot trees, 1000 apple trees and 1000 pistachio trees. The fruit harvest will be traded at the local markets and processed for jam, pistachio nuts, and dried fruit. In addition to the reduction of risks connected with the climate change the project will also contribute to the agriculture development and enhancement of LC wellbeing.

To irrigate the fruit plantations and vegetable, cereals and forage fields, deep-water wells will be drilled between the rows of trees within the area of forest plantation (100 ha). For the purposes of rational water use the drip irrigation system will be applied – a more sustainable approach in the face of increasing climate-driven aridity. In the first year a forage mix of lucerne and barley will be planted between the rows. This activity will be funded and implemented by the Proponent. It will ensure the additional income for the LC members made from the forage to be collected for winter. In addition, lucerne will enhance the soil fertility and its mechanical structure.

The lands selected by the local community for the forest belt are adjacent to the near-village pastoral lands. For the time being due to overgrazing such lands are exposed to degradation to a greater or lesser degree. The cattle maintained by the local community is grazed without any system entering the territory allotted for forest belt. To reduce the grazing load on the near-village pastures and conserve the forest plantations the remote distant pastures will be used seasonally in the mountains where Kara-Kazim PC owns 129 ha of grazing lands. This project component, combating the pastoral degradation connected with the climate risks, will be implemented by the proponent using internal resources.

1.0. RATIONALE

1.1. Community/ Ecosystem Context

Shyrkyn Village, Kainarbulak Rural County, is located 22 km northeast of Symkent, the oblast center, and 18 km from Aksukent, the district center. The village contains over 3500 ha. It has 329 households with over 2,500 inhabitants. Land farming and animal husbandry are the main activities. The land farming is represented by vegetable, cereal and forage crops. The inhabitants breed cattle, horses, sheep and goats. The main sources of income are the products of land and cattle farming that are traded at the district market and in Shymkent.

1.2. Climate Context

According to meteorologists, the area (project site) is characterized by continental climate. The winter is mild with frequent thaws. The area slopes upward from north to south, with higher-elevation areas in the south experiencing lower temperatures and higher precipitation. The average temperature in January in the north is 12°C below zero, in the south - 2-4°C below zero. Summer is hot and dry: air temperature in July ranges from +30° to +40°. The average annual precipitation in the north reaches 150mm, in the south – 800mm. In recent years the climate is exposed to considerable changes. Winter becomes more severe with a large number of cold days; summer is hot, with dry hot winds; in summer there is practically no precipitation. So, last winter the temperature reached 30 degrees below zero and last summer was characterized by not only high temperature (reaching 50 degrees above zero) but also hot dry winds and zero precipitation. The large rivers like Syrdarya and Arys shoal; the small rivers dry out and extinct.

1.3. Impacts Context

Climate change projections for Kazakhstan¹ include the following:

- Temperature rise, specially in winter
- Increased share of rain in relation to snow
- Increased aridization and evaporation
- The reduced agricultural crop yield; degradation of pastures
- Recently reported trends (reported by the local communities):
 - Reduction of average annual precipitation level
 - Increased dry hot winds
 - Increased dust storms.

1.4. Project Approach

The project site lands are significant for agriculture since the climate is favorable for growing vegetables, fruit and berries. The project activities will include the training for LC members and planting the forest belts of fruit trees. Such activities will reduce the climate change risks as follows:

Climate change forecast	The impact on LC and ecosystems	The project activities addressing the climate change impacts
1. Reduced average annual precipitation	Reduced moisture content in soil. The growing risks of erosion (stemming from reduced soil cover) leading to the reduction of soil fertility.	Moisture retention activities by establishing the forest protection belts and other soil conserving methods will increase the content of moisture in the root-formation soil layer thus protecting soil and its fertility.
2. The growing risks of drought	Increased evaporation, soil dry-out; vegetation suppression; reduced crop yield. The growing risk of forest fires.	The forest belt establishment activities will contribute to conserving a more humid microclimate, reducing the loss of soil moisture and conserving its fertility. The fire control training will protect from the forest fires.
3. The rise of temperatures	Reduction of favorable microclimate conditions to grow agricultural products	The forest belt establishment activities will increase snow retention and conserve the soil moisture being favorable for water-loving agricultural crops.
4. Increased dry hot winds	Dry-out of the soil fertile layer. Intensified dust storms.	The forest belts will be a barrier to prevailing winds and will reduce the impact of dry hot winds.

2.0 COMMUNITY OWNERSHIP

2.1. Project Formulation

The community will benefit from more sustainable agricultural practices to be implemented and reduction of vulnerability to the climate change, especially connected with the growth of soil erosion. In addition, the more sustainable agricultural practices will enable to preserve the microclimate for growing vegetables, wheat, forage crops between the rows of the forest belts. The best practices will be identified for replication in the neighboring communities existing in the district and oblast.

The proposed approach to the forest belt arrangement to combat dry hot winds and retain snow was discussed with involvement of the local community during the rural meeting and gained the full support on the part of the local inhabitants.

The project innovation is that in addition to the reduction of dependence of local inhabitants on the climate risks the project will implement the new practice of forest belts composed of cultivated fruit trees instead of fruitless bushes. In addition to the global environmental benefits this will bring about economic benefit for the local community.

2.2. Project implementation

The project community meetings will be held periodically on a quarterly basis to keep track on the planned project activities, accomplished objectives and counter-challenges. Such meetings with the community members will not only ensure the project impacts upon its completion but also the transparency and growth of social capital amongst the community members.

¹ Projections are based on information from the 1st and 2nd Kazakhstan National Communications to the UNFCCC, as well as information from the Kazakhstan 2007 national human development report.

The project goal will be addressed through the outcomes and outputs as described below:

Outcome 1: (CBA-funded activities) Forest belts established to mitigate the climate risks connected with the reduction of winter snowfalls, and to retain the soil moisture and more humid microclimate.

Output 1.1: Analysis of the most efficient location of forest protection belts; analysis of arrangement and procurement of seedlings of various tree species.

Output 1.2: Establishment of forest protection belts covering 100 ha of the project site in view of the predominant wind direction.

Output 1.3: Planting the lucerne and barley mix between the rows of the forest belt to grow winter forage (co-financing by the project proponent).

Outcome 2: (co-financing): Pasture overgrazing reduced through implementation of remote summer grazing.

Output 2.1: Training for the local community members in efficient use of remote pastures and infrastructure development.

Output 2.2: To graze non-milked cattle at remote summer pastures (the lands owned by the local production cooperatives).

Outcome 3: (CBA-funded activities) Ground water for irrigation rationally managed

Output 3.1: To develop the drip irrigation system for the forest protection belts and agricultural crops at the project site.

Output 3.2: To train the local community and inhabitants in the drip irrigation method and sustainable management of such technology.

Output 3.3: To publish the information booklet about the forest belt impacts to reduce the LC vulnerability to the climate change risks.

Output 3.4: Dissemination of the project experience replicable by the other local communities.

Outcome 4: (CBA funds and co-financing): The local community is able to take into account the climate risks in the land and water resources management.

Output 4.1: LC members are aware of the increased risks related to the long-lasting climate changes.

Output 4.2: The local community is trained in the efficient use of forest protection belts to reduce the loss of moisture in soil, wind erosion and increase the community's wealth.

2.3. Phase-out Mechanism; Sustainability

Sustainability of projects results will be achieved based on real needs of local community in forests belts. The forest belts will create more comfortable microclimate for planting in the space between belts different types of vegetables, forage and crops. In some years the local community will have benefit from fruits selling. Due to this interest the local community will protect and watering trees by their own forced without external support or financing.

The creation of drop irrigation system will save a lot of water and decrease dependence of local community in water resources and guarantee products (fruits, vegetables, crops) production which not depends from climatic conditions.

The fact that forest belts will be created on community lands is also guarantee safety of trees.

Farmer and Entrepreneur Support Fund PF will keep on seeking the project resources to expand the work commenced by the project. It needs to be noted that one of the Fund's mission is building the capacities of the local communities at district and oblast levels by promoting the sustainable methods of water, soil and biodiversity conservation.

3.0 PROPONENT DESCRIPTION

3.1. Organization's background and Capacity

Farmer and Entrepreneur Support Fund PF is a public non-profit organization founded in 1997 under TACIS project funded by International Mercy Corps. The Fund's *mission* is to promote development and strengthening of the agricultural sector, small and medium-size business in South-Kazakhstan Oblast through the loans and training programs for the potential and actual clients.

The main activities of the Fund are as follows: financial services in a form of group and individual loans; non-financial services such as free-of-charge training workshops and consulting in crediting, business planning and writing business plans.

The total budget of the Fund is US\$662,455 including US\$476,835 – the own funds and US\$185,620 – raised funds /loans.

For eleven years the system of financial support enabled the Fund to gain the repute of a reliable source of financial support amongst the farmers, entrepreneurs and low-income groups. The Fund has granted loans to 1644 farmers and entrepreneurs for the total amount of KZT394.3 million. 537 (32.7%) of 1644 funded persons are women. The Fund actively cooperates with the partners such as Kazakhstan Civil Alliance, Union of Farmers of Kazakhstan (U FK), Kazakhstan Association of Micro-credit Organizations (KAMO), SKO Civil Alliance, SKO Association of Business Women etc.

The grants obtained and the investments raised by the Funds are as follows: the grant was provided for the formation of the Fund's loan portfolio under TACIS Project funded by International Mercy Corps under Agreement of 03.10.1997; the grant was provided for the formation of the Fund's loan portfolio by GTZ under Agreement of 01.10.1999; technical support (fixed assets and equipment) was provided by Winrock International Agriculture Development Institute under Agreement of 24.05.1999; the loan for the Fund's loan portfolio replenishment was issued by Winrock International Agriculture Development Institute under Agreement of 01.09.1999; the loan was issued by Eurasia Foundation funded by USAID for the project implemented under the Program "Developing the System of Consulting Assistance to Farmers and Entrepreneurs" in SKO; technical assistance (equipment and software; staff training; professional upgrading) was provided by CAMFA project under Subcontract No.12 dated 11.12.2003.

In 2003 the Fund took part in the tender to select the lending bank for budget loans to the final borrowers in Saryagash, Kazygurt and Tolebi districts. The Fund was a preferred bidder to issue loans to the borrowers and issued the budget loans thus contributing to the creation of 111 new jobs for socially vulnerable groups of people.

In 2004 the Fund was a preferred bidder in the tender for socially significant projects announced by the Ministry of Information with the project "The System of Consulting Support to Farm Managers and Private Entrepreneurs in Implementing the Socially Significant NGO Projects". A series of workshops have been held in rural districts covering 219 participants.

The PRAGMA Corporation funded by USAID has issued the grant for the project "Developing Trade-Economic Relationships in Central Asia by Providing the Regional Trade Development (RTD) Services to the Central Asian Companies and Entrepreneurs via RTD Network", Agreement dated 15.04.2005.

Frontiers, Kyrgyzstan, has issued the loan for the credit portfolio replenishment and expansion of activities, Agreement of 28.01.2005.

Eurasia Foundation sponsored by USAID and Philip Morris (agreements of 28.08.2006) have issued the grant for the project "Training Workshops for Rural inhabitants to Develop Business Ideas, Create Jobs and Alleviate Poverty".

Finance Planet, France, has provided the loan for the credit portfolio replenishment and expansion of activities, Agreement of 20.05.2006.

In 2007 Frontiers, Kyrgyzstan, has issued the wholesale loans for the credit portfolio replenishment and expansion of activities, Agreement of 01.02.2007.

The loan was issued by SKO Small Business Development Fund JSC for the credit portfolio replenishment and expansion of activities, Agreement of 14.09.2007.

The proponent took part in the joint project with SKO Employment Coordination and Social Programs Department, SKO Civil Alliance, Eurasia Foundation funded by USAID and Philip Morris to organize the training workshop for rural inhabitants in business ideas development; job creation and poverty alleviation in four rural districts of SKO. The project "Training Workshops for Rural inhabitants to Develop Business Ideas, Create Jobs and Alleviate Poverty" has covered 338 participants of SKO including 144 low-income persons who have been provided the loans. 432 jobs have been created for the rural inhabitants. The well being of rural people was improved through the business development crediting. The budget was replenished by tax revenues; the social tension was released in rural areas. For the period of operation the Fund was involved in organizing training workshops, round tables and consultations in 10 districts covering 4746 training participants of which 665 farmers, 702 businessmen and 132 low-income persons have been selected for loans with 4152 new jobs created.

Kara-Kazim PC, Sairamsky District, has been operating since 1991 in the field of land farming maintaining 100.7 ha. The main activities include agricultural production, animal husbandry, cattle breeding, horse breeding and sheep rising. The farm operates 107,0 ha of lands including 15.6 ha of irrigated fields under vegetable crops and melons. The other 91.4 ha are under cereals and legumes. The farm has the own machinery fleet with 7 units of agricultural machines including complete harvester CK-5, PUNN with 2 carts, chain-track tractor ДТ-75, chain-track tractor T-60, wheeled tractors T-40 with the carts and one vehicle. The members are the skilled professionals with the university degrees in agriculture; the farm is fully staffed with professional labor and workers.

4.0. PROJECT DESCRIPTION

4.1. Objective, Outcomes, Planned Outputs

Project Objective:	To reduce the risks of land degradation connected with the increased summer temperatures, dry hot winds and decreased winter snowfalls
Outcome 1: (CBA-funded) Forest belts established to mitigate the climate risks connected with the reduction of winter snowfalls, and to retain the soil moisture and more humid microclimate.	
	Output 1.1: Analysis of the most efficient location of forest protection belts; arrangement and procurement of seedlings of various tree species
	Output 1.2: Establishment of forest protection belts covering 100 ha of the project site in view of the predominant wind direction
	Output 1.3: Planting the lucerne and barley mix between the rows of the forest belt to grow winter forage (co-financing by the project proponent)
Outcome 2: (co-financing) Pasture overgrazing reduced through implementation of remote summer grazing.	
	Output 2.1: Training for the local community members in efficient use of remote pastures and infrastructure development
	Output 2.2: To graze non-milked cattle at remote summer pastures (the lands owned by the local production cooperatives)
Outcome 3: (CBA-funded) Ground water for irrigation rationally managed	
	Output 3.1: To develop the drip irrigation system for the forest protection belts and agricultural crops at the project site
	Output 3.2: To train the local community and inhabitants in the drip irrigation method and sustainable management of such technology
	Output 3.3: To publish the information booklet about the forest belt impacts to reduce the LC vulnerability to the climate change risks
	Output 3.4: Dissemination of the project experience replicable by the other local communities
Outcome 4: (CBA funds and co-financing) The local community is able to take into account the climate risks in the land and water resources management.	
	Output 4.1: LC members are aware of the increased risks related to the long-lasting climate changes.
	Output 4.2: The local community is trained in the efficient use of forest protection belts to reduce the loss of moisture in soil, wind erosion and increase the community's wealth.

4.2. Timetable

	m	a	m	j	j	a	s	o	n	d	j	f	m	a	m	j	j	a	s	o	n	d	j	f
Outcome 1																								
Output 1.1																								
Output 1.2																								
Output 1.3																								
Outcome 2																								
Output 2.1																								
Output 2.2																								
Outcome 3																								
Output 3.1																								
Output 3.2																								
Output 3.3																								
Output 3.4																								
Outcome 4																								
Output 4.1																								
Output 4.2																								

4.3. Risks and Barriers

The following are the potential risks:

- Changes in the cost of materials and equipment to be used in the project;
- Fluctuations of exchange rates;
- Failure to perform the contractual obligations by the suppliers of materials and equipment;
- Rise of air temperature and heavy winds having impact on the survival ability of seedlings.

To overcome the above risks the proponent will perform the marketing study and select the reliable partners. The project funds will be allocated in installments subject to the full accountability for the preceding transfer of funds. In case of deteriorated climate conditions the proponents will improve maintenance to ensure strengthen the survival ability.

4.4. Monitoring and Evaluation Plan

The project activities will be measured by the indicators as follows:

- The area of forest protection plantations;
- Survival ability of seedlings;
- Changes in moisture content and mechanical structure of soil based on baseline assessments to be conducted at the beginning of the project;
- Conditions of pastures operated by the local community based on baseline assessments to be conducted at the beginning of the project;
- The incomes of local community in connection with the changes in land and water resources management strategy based on baseline assessments to be conducted at the beginning of the project.

Said indicators will be analyzed on the background of meteorological data to be provided by the nearest meteorological station to measure the changes in quantity of products against the climate conditions.

UNDP ADAPTATION INDICATORS:

The project will be evaluated based on the CBA Country Program Strategy indicators as listed below:

- The number of implemented practices focused on the reduction of risks associated with climate change and incorporated as part of the activities on sustainable natural resources management;
- The number of tested approaches to the natural resources sustainable management to improve the local livelihoods and protect the resources;
- The number of regulations prepared/ adopted during the project;
- The area of lands where the sustainable water and land resources management has been implemented by the project;
- The number of participants (households) benefiting from the sustainable resources management activities (such as increase in income or provision of food safety etc.).

The items exposed to UNDP adaptation indicators are listed below:

- (1) The project will use 2 technologies (forest protection belts and drip irrigation) as part of the activities for sustainable farming within the project site
- (2) Sixteen percent of the project site will be exposed to the climate-resistant farming activities
- (3) The booklet will be issued in Kazakh and Russian on the sustainable natural resources management based on the fruit forest protection belts and drip irrigation as the methods to combat the climate risks.
- (4) 53 households will benefit from the project in the first year of project implementation; thereafter the project will involve 110 households.
- (5) 229 ha will be under sustainable management (4 farms and 2 PC will be involved).
- (6) Three regulations (Agreements with Deputy Akim of Sairam District A. Amiraliyev and Akim of Kainarbulak Rural County A. Odamanov and Water Use Act) will be adopted at the project site.
- (7) 250 ha of degraded lands will be rehabilitated due to seasonal use of remote pastures.

GEB will be measured by the land area involved in the sustainable land tenure practices resulting from the project activities and by implementing the adaptive method of sustainable LC development. Specifically, the following SGP Impact Assessment System indicators (measuring GEB) will be applied:

- The area of degraded lands restored by the project
Target: 250 hectares

- The area of lands where the sustainable management has been implemented by the project
Target: 229 hectares
- The number of developed/ implemented innovations or new technologies.
Target: 2 innovations

The inhabitants of Shyrkyn Village will be provided a demonstrational workshop and field training to disseminate the information on rational land and pastoral management; the project experiences will be disseminated through the booklet.

4.4.1. Initial VRA Analysis

The Vulnerability Reduction Assessment (VRA) will be performed at the planning stage, at mid-term and at the end of the project.

The vulnerability reduction assessment (VRA) will be based on the questions as listed below:

- How serious is the impact of intensified aridization (dry hot winds, reduction of snow, wind erosion) on your livelihood?
- What are the methods that are currently used to control the growing aridization? How efficient are they to sustain the livelihoods in adverse years?
- Should the adverse years with dry hot winds and low snow cover become normal, how serious will be the impact on your livelihood?
- How efficient are the methods currently used by the local community to maintain the livelihood supposing the dry hot winds and low snow cover become normal?
- What are the barriers to using the forest protection belts and drip irrigation? How serious are they?
- Do you think the community is capable of maintaining the forest protection belts and drip irrigation after the project?
- Will the local community be able to reduce its vulnerability to the climate change risks after the new forest protection method has been implemented?

The questions have been discussed at the workshop with LC of Shyrkyn Village, 4 December 2008. Below are the H-forms filled in by the discussion participants.

Note: In questions 1, 3, and 5, the VRA scale was reversed in order to facilitate communication with community stakeholders. This is arithmetically transformed below.

Vulnerability reduction Assessment (VRA) H-Form for the Forest Protection Belt Project

Reasons of negative answers	1. How serious is the impact of intensified aridization (dry hot winds, reduction of snow, wind erosion) on your livelihood?	Reasons of positive answers
1. Changed the activities 2. Replaced water-loving crops by the draught-resistant species (vegetables were replaced by lucerne). 3. Drilled the own well.	<p>7,6</p> <p>0 7, 6, 7, 7, 6, 6, 7, 7, 6, 9, 8 10</p> <p><i>How can the rating be improved?</i></p> <p>1. To plant fruit forest belts 2. To replace the crops by the draught-resistant varieties 3. To raise water management awareness of the rural inhabitants 4. To develop the water use regulations on the local level (LC, district)</p>	<p>1. Low income due to reduction of crop yield 2. Reduced area of irrigated lands 3. 30% shrinkage of surface waters 4. Insufficient water in the channel 5. Reduced precipitation 6. No coordination for the rational land tenure 7. The trunk channel needs cleaning 8. Expansion of animal and plant diseases 9. Deterioration of human health 10. Degradation of pastures 11. Growing unemployment</p>

Reasons of negative answers	2. What are the methods that are currently used to control the growing aridization? How	Reasons of positive answers

1. The crops are replaced 2. Some LC members have economic capacities to implement the rational farming practices	efficient are they to sustain the livelihoods in adverse years? 3,8 0 5, 7, 3, 3, 5, 6, 2, 3, 1, 7, 0 10	1. The lack of material and technical capacities 2. The lack of information on the methods; the lack of knowledge of efficient methods to address the risks of climate change 3. Replacement by the autumn irrigation crops (beat, radish) 4. Irrigation from wells 5. Crop rotation
	<i>How can the rating be improved?</i> 1. Marketing (to study crop yields and the earning power of various crops under the climate change conditions) and recommendations 2. To raise awareness and knowledge of rural inhabitants on the efficient methods to reduce the risks of climate change	

Reasons of negative answers	3. Should the adverse years with dry hot winds and low snow cover become normal, how serious will be the impact on your livelihood? 9,2 0 10, 10, 9, 10, 8, 9, 10, 8, 9, 9, 9 10	Reasons of positive answers
N/a	<i>How can the rating be improved?</i> 1. The innovative land farming methods are needed 2. To implement drip irrigation 3. To implement the methods of moisture and snow retention (forest plantations).	1. Correlation between the climate conditions and agricultural productivity 2. Shrinkage of surface waters 3. Reduction of pastoral fertility 4. Deterioration of animal health and conditions

Reasons of negative answers	4. How efficient are the methods currently used by the local community to maintain the livelihood supposing the dry hot winds and low snow cover become normal? 2,2 0 2, 1, 2, 2, 3, 2, 3, 1, 2, 3, 3 10	Reasons of positive answers
1. Continuous reduction of crop yields 2. The prices for seeds and water supply maintenance are growing 3. Soil erosion	<i>How can the rating be improved?</i> 1. To seek and implement the new farming practices 2. To implement zero technology	1. Some LC members use water from wells for irrigation

Reasons of negative answers	5. What are the barriers to using the forest protection belts and drip irrigation? How serious are they? 4,5 0 8, 6, 4, 5, 3, 4, 4, 3, 5, 5, 3 10	Reasons of positive answers
1. Some LC members can support the project 2. The existing production cooperatives and farms can make their contribution	<i>How can the rating be improved?</i> 1. Broad awareness of LC members on the climate change risks 2. The adaptation method will generate the growth of income and create the new jobs 3. To build partnership relations with the district authorities	1. Administrative barriers. 2. Lack of material and technical base.

Reasons of negative answers	6. Do you think the community is capable of maintaining the forest protection belts and drip irrigation after the project? 8,4	Reasons of positive answers
1. Low survival ability of seedlings	0 10, 8, 10, 9, 8, 8, 8, 8, 7, 8, 8 10 <i>How can the rating be improved?</i> 1. Project expansion by implementing the fruit processing methods (drying, canning) 2. The profit will be reinvested to expand the forest plantation and develop the drip irrigation method	1. The method will develop based on self-funding

Reasons of negative answers	7. Will the local community be able to reduce its vulnerability to the climate change risks after the new forest protection method has been implemented? 8,7	Reasons of positive answers
N/a	0 10, 9, 8, 9, 10, 8, 8, 9, 8, 8, 9 10 <i>How can the rating be improved?</i> 1. To implement the processing methods 2. To develop and implement the product sales methods	1. In 5 years the forest protection belt practices will generate high yields and incomes (100 tons of grape /5 ha/100 KZT/kg)

The summary of discussion results is provided in the table below

Vulnerability assessment reporting form	Raw Score	Final Score (with results from 1,3,5 reversed).
Indicator 1	7,6	2.4
Indicator 2	3,8	3.8
Indicator 3	9,2	0.8
Indicator 4	2,2	2.2
Indicator 5	4,5	5.5
Indicator 6	8,4	8.4
Indicator 7	8,7	8.7
Total score (VRA)		4.54

4.5 Project Management

4.5.1. Management Structures

Rais Karaibragimov is the person responsible for the project implementation. Rais has an agricultural background and extensive farming experience. He is the manager of Farmer and Entrepreneur Support Fund PF. He is a suitable nominee and is capable to manage the project activities (Resume is available). In addition, for the recent year and a half Rais Karaibragimov has been having meetings with Deputy Akim of Sairam District Mr. A. Amiraliyev, Akim of Kainarbulak Rural County Mr. A. Odamanov, management of production cooperatives, heads of farms and farmers of the target communities and has built good business relationships with the project stakeholders and partners. He organized VRA workshops and managed the project planning activities. R. Karaibragimov will be assisted by A. Bekzhigitov in the field of logistics, meeting, fund raising, financing and reporting. Mr. Karaibragimov will report on a quarterly basis on the progress to SGP GEF National Coordinator Stanislav Kim. Thus, project monitoring and evaluation will be on a regular basis.

4.5.2. Relationships and Responsibilities of the Proponent and Project Partners

Rais Karaibragimov will work in close liaison with the management of production cooperatives, heads of farms and LC members. He will also liaise with the management of other entities to obtain their technical and other assistance, e.g. Akimat of Sairam District, Akimat of Kainarbulak Rural County.

Farmer and Entrepreneur Support Fund PF will support the project management and allocate the man/hours of the Fund Manager and other staff members and co-finance the project (well drilling works). Kara-Kazim Production Cooperative will allocate funding for the soil preparation works, planting of seedlings, arrangement of the seasonal rotation of remote rangelands, procurement of equipment and agricultural machinery, while CBA will fund the climate change component of the project.

Project Cost

Total project cost is US\$116,415; requested amount is US\$50,000.

The project will be co-financed by Kara-Kazim Production Cooperative. The project will be supported by the district and village authorities; school teachers and other professionals living in the village will be involved in the project.

5.0 PROJECT COST AND OTHER SOURCES OF FUNDING

5.1. Total Project Cost and Amount Requested:

Total project cost: US\$116,415

Amount requested: US\$50,000

(Note: the grant of US\$2,000 was allocated to the planning grant)

		Item	CBA Input, \$	Proponent's Input, \$		Kara-Kazim's Input, \$		Total Amount, \$
		(Description)		In Cash	In kind	In Cash	In Kind	
Outcome 1	Output 1.1	Analysis of the most efficient location of forest protection belts	3000	0		0		3000
	Activity 1.1.1	Ecological assessment	1000					
	Activity 1.1.2	Agronomic assessment	1000					
	Activity 1.1.3	Pastoral management assessment	1000					
	Output 1.2	Establishment of forest protection belts in view of the predominant wind direction	12500	0		28540		41040
	Activity 1.2.1	Procurement of seedlings	12000					
	Activity 1.2.2	Transportation of seedlings	500					
	Activity 1.2.3	Soil preparation and processing/ tillage: 16.8 ha *66,67\$				1120		
	Activity 1.2.4	chisel tillage - 16,8 ha * 66,67\$				1120		
	Activity 1.2.5	cutting rows for plantation - 16,8 * 41,67\$				700		
	Activity 1.2.6	seedlings planting – 4000 pcs * 1\$				4000		
	Activity 1.2.7	fertilizers – 4000 seedlings * 0,5				2000		
	Activity 1.2.8	forest maintenance workers 24 months * 2 persons * 100				4800		
	Activity 1.2.9	security staff – 24 months * 1 person * 100				2400		
	Activity 1.2.10	agricultural machinery and equipment: tractor T-60				5600		
	Activity 1.2.11	agricultural machinery and equipment: plough				1100		
	Activity 1.2.12	agricultural machinery and equipment: chisel				1700		
	Activity 1.2.13	agricultural machinery and equipment: baling machine				4000		
	Output 1.3	Planting the lucerne and barley mix between the rows of the forest belt to grow winter forage (co-financing by the project proponent)				2790		2790

	Activity 1.3.1	Land processing, planting of Lucerne 16.8 ha*37.5 USD=630 USD				630		
	Activity 1.3.2	Lucerne seeds purchasing 20kg/ha*16.8 ha*50USD=840				840		
	Activity 1.3.1	Collection of Lucerne and its transportation				1320		
Outcome 2	Output 2.1	Training for the local community members in efficient use of remote pastures and infrastructure development	700	0				700
	Activity 2.1.1	Identification of LC pastures forage potential	400					
	Activity 2.1.2	Development of remote pastures rational use scheme.	200					
	Activity 2.1.3	Conducting of training for LC on rational seasonal pasture management						
	Output 2.2	To graze non-milked cattle at remote summer pastures (the lands owned by the local production cooperatives)	0	0		2400		2400
	Activity 2.2.1	Construction of field camp for shepards				1000		
	Activity 2.2.2	Community meetings, collecting of livestock in common group, selection and training of shepards				300		
	Activity 2.2.3	Recovering of watering point				1000		
	Activity 2.2.4	Development and distribution of information sheets				100		
Outcome 3	Output 3.1	To develop the drip irrigation system for the forest protection belts and agricultural crops at the project site	17200	4000		21875		43075
	Activity 3.1.1	well drilling works	9000					
	Activity 3.1.2	procurement of plastic pipes	4900					
	Activity 3.1.3	procurement of electric pumps (40% cost coverage)	3300					
	Activity .1.4	well drilling co-financing (9% cost coverage)		4000				
	Activity 3.1.5	procurement of plastic pipes				5900		
	Activity 3.1.6	installation of electric networks, assembly, adjustment				7975		
	Activity 3.1.7	power supply and permissions for the well				4000		
	Activity 3.1.8	tank: transportation, installation and fitting (51% cost coverage)				4000		

	Output 3.2	To train the local community and inhabitants in the drip irrigation method and sustainable management of such technology (field training, estimations, writing contracts)	700			0		700
	Output 3.3	To publish the information booklet about the forest belt impacts to reduce the LC vulnerability to the climate change risks	300			0		300
	Output 3.4	Dissemination of the project experience replicable by the other local communities	0	300		0		300
	Activity 3.4.1	Publications in the mass media (in regional newspapers like Th South Kazakhstan, Shymkent Panorama, Shymkent Kelbeti)		300				
	Activity 3.4.2	Demonstrational workshop about project achievements and approach used for neighbors community representative	900	0		0		900
Outcome 4	Output 4.1	LC members are aware of the increased risks related to the long-lasting climate changes	0	300		0		300
	Activity 4.1.1	Publication of leaflets, talks, seminars and discussions CCRs, live broadcast on TV Kazakhstan Shymkent		300				
	Output 4.2	The local community is trained in the efficient use of forest protection belts to reduce the loss of moisture in soil, wind erosion and increase the community's wealth (field training)	700	0		0		700
		Project management activities (as per TOR below)	6480	6000		0		12480
		Monitoring and evaluation	2020	0		0		2020
		Experts	1000					
		Transportation	600					
		Accommodation	420					
		Transport (experts)	2040	0		0		2040
		Accommodation and boarding of experts	2000	0		0		2000
		Communications	600	600				1200
		Banking fees	360	0		0		360
		Contingencies	500	0		0		500
	Total		50000	11200		58005		119205

The budget is estimated at the current exchange rate of 1\$ = KZT120

Project Management Activities: Total CBA input - 6480\$: labor/ manager, coordinator, accountant; 52% cost coverage. Local input - 6000\$: labor/ manager, coordinator, accountant; 48% cost coverage.

Demonstrational workshop: Total CBA input - 900\$

Monitoring and Evaluation: Total CBA input - 2020\$: monitoring, experts, lubricants for transport

Travel expenses: Total CBA input - 2040\$.

Accommodation and boarding: Total CBA input - 2000\$.

Communications: Total CBA input - 600\$; local input - 600\$.

Banking fees: Total CBA input - 360\$.

Contingencies: Total CBA input - 500\$

Joint Activities: Project Management TOR:

- Project paperwork and reporting – 2 days/month (2 x 24 = 48 working days)
- Project liaison and networking, e.g. attendance and arrangement of the relevant meetings such as coordination with experts, water users, governmental agencies, workers and farmers (24 months x 15 days = 360 working days)
- Quarterly sessions with LC members (8 business days)
- Liaison with experts, Program Coordinator and advocacy, e.g. visits to akimat and district authorities for the purposes of broad public awareness (48 days)
- Monitoring and evaluation of progress and arrangement of mid-term and end-of-project VRA meetings in Shyrkyn Village (30 days).

Total project working days – 494 days.

6.0 ANNEXES

6.1. Project Site Map