ADAPTATION FUND

PROJECT/PROGRAMME PROPOSAL TO THE ADAPTATION FUND

PART I: PROJECT/PROGRAMME INFORMATION

Project/Programme Category:	Regular – Project Concept
Country/ies:	Kyrgyz Republic
Title of Project/Programme:	Resilient Pastoral Livelihoods Project-ADAPT
Type of Implementing Entity:	Multi-lateral Implementing Entity
Implementing Entity:	International Fund for Agricultural Development
Executing Entity/ies:	Ministry of Agriculture, Food Industry and Melioration
Amount of Financing Requested:	USD 9,985,526 (5 years)

A. Project Background and Context

Location and climate

Climate and Natural Resource Base: The climatic zones in the Kyrgyz Republic are differentiated by altitudes; from the lowest to the highest, they are: valley-sub mountain zone, mountain zone, high mountain zone, and nival belt zone. Overall, the climate is continental with hot summers and cold winters. The average annual temperature in the capital of Bishkek is 10.4 °C.[1] Average annual precipitation is an estimated 533 mm, varying from 150 mm on the plains to over 1,000 mm in the mountains. The average annual temperatures during 1885-2010 showed statistically significant increase, acclerating in recent decades. Annual precipitation slightly increased in the same period, but a small downward trend has been observed in the last 20 years.

Environmental and agro-ecological conditions

Rangelands cover around 50 percent of the country, with 10 percent of the territory at the lowest altitude being arid. Another 50 percent of the territory is classified as uninhabitable, where mining and seasonal agricultural activities may take place. While soil differs from grey-brown desert type to chernozem-forest type in spruce forests, most of the land is highly susceptible to erosion due to its extremely mountainous nature. Only 7 percent of Kyrgyzstan's land is arable, of which 75 percent is irrigated. An estimated 70 percent of agricultural land is degraded, with low soil fertility, salinization, soil erosion, and organic soil carbon content that has declined from 3 percent to 1.5 percent. The country's varied geography and climate account for its high biodiversity: it hosts approximately 1 percent of the world's flora and fauna, in only 0.13 percent of global landmass, with many unique plants and animals in the mountain ecosystems.

[1] https://en.climate-data.org/asia/kyrgyzstan-237/

In 2010, 5.6 percent of total area of the country was covered with forests, almost all of which are state-owned.[2] About 90 percent of all forests grow at altitudes between 900 and 2500 m above sea level. Although forests form a relatively small proportion of the country's total territory, they are highly diverse - main mountain forest types include spruce, juniper, walnut and floodplain/riverine forests. Forests prevent soil erosion and regulate water cycles, but are threatened by low natural regeneration from grazing and hay making; illegal logging and excessive collection of firewood; overharvesting of fruits and nuts; and pests and disease. Over the last thirty years, forest cover has been reduced by at least 50 percent. Intensive livestock grazing has had a significant effect on forests, with almost one million ha of forestland being used for grazing. Pastures are overgrazed in the low and middle altitudes due to inappropriate herd management and stocking rates.. Between 1990 and 2018, the number of cattle increased by 35 percent, cows and horses by 60; percent, while pigs decreased by 87 percent, sheep and goats by 38 percent and poultry by 57 percent.

Several livestock/rangeland ecosystems are trapped in a vicious cycle of productivity collapse: overgrazing and degradation cause lower levels of available forage, which reduces animal productivity, causing households to own more animals to compensate for productivity declines, which in turn increases grazing pressure and leads to more degradation. Climate change is exacerbating land degradation in the country, for example through increased average temperatures and increased incidence of heat waves, droughts and extreme rainfall events, as well as thawing at higher altitudes (see below), which further aggravates this vicious cycle. At the same time, the country lacks an effective integrated management framework for pasture and forest resources.

Socio-Economic Characteristics

Population, economy and poverty

Kyrgyzstan declared its independence in August 1991 from the Soviet Union. Characterised as a hybrid regime in The Economist Intelligence Unit's 2018 Democracy Index, it is ranked 98th out of 167 countries, performing much better than regional peers as it is the only non-authoritarian country in Central Asia. Limited governance capacity has manifested in a Corruption Perceptions Index ranking of 132 out of 180 countries in 2018.

In 2015, the population was approximately 6 million, which included an economically active[3] population of about 2.5 million. Life expectancy for men is 67.2 years and for women 75.4 years.[4] Nationally, more than half of the population is aged 25 or less, and almost a third is between 15 and 25 years old. In 2015, approximately 66.3 percent of country's economically active population lived in rural areas, which remain underdeveloped, with few off-farm jobs; approximately 200,000 people were registered as unemployed at the national level (actual figures are significantly higher). In 2015, the GoK estimated that 700,000 citizens (one-third of the country's working-age population) had migrated for employment in Kazakhstan and Russia. Women head 27 percent of households on average[5], while female-headedness in rural areas is 21 percent, lower than the 36 percent in urban areas. Female-headed households (FHHs) in rural areas increased only slightly since 1997, when it was 18

[2] According to the Forest Code of the Kyrgyz Republic, forest lands include: forested land, including land covered with forest vegetation as well as scattered forest stands, plantations, nursery gardens, glades, burned-out forest, open woodlands and vacant plots; and non-forest land but which is part of the forest ecosystem, including agricultural and other land plots as well as lands where forest were removed for construction/utility purposes.
[3] Employed (including self-employed) and actively looking for employment.
[4] Life expectance by sex in 2018, National Statistical Committee of the Kyrgyz Republic, 2019.
[5] National Statistical Committee et al., *Kyrgyz Republic: Demographic and Health Survey 2012*, 2013.

percent. *De facto*, however, there are numerous female-headed households due to male out-migration.

With an average GNI per capita of US$ 1,130 (2017, Atlas method), Kyrgyzstan is classified as a lower middle-income country; it ranks 122nd of 189 countries in the 2017 Human Development Index (HDI), with an HDI value of 0.672. The economy is vulnerable to external shocks owing to its reliance on one gold mine, Kumtor, which accounts for about 10 percent of GDP, and on worker remittances, equivalent to about 27 percent of GDP in 2018. Household spending—boosted by firm remittance inflows from Russia, robust wage growth of 5.9 percent and a slowdown in inflation—was the main driver of economic growth in 2018. It is expected that there will be a slight pick-up in real GDP growth in 2019-20, to 4.1 percent on average, compared with 3.5 percent in 2018.

From 2005 and 2015, the population living under US$2.5/day declined from 66 percent to 32 percent, but a majority of citizens remain vulnerable to poverty: in 2015, more than 80 percent lived below US$5/day, and only 1.6 percent earned an income higher than $10/day. Further, 70 percent of poor people live in rural areas, where the average salary in 2015 was three times lower than the national average. In 2015, the average per-capita income in mountainous areas was approximately US$82, which is 1.3 times lower than in valleys (NSC data). The number of rural households is about 796,000, and the average size is 5.3 members. About one-fifth of the population qualifies as rural youth (14-28 years old). The literacy rates for women and men aged 14-28 were 99.8 percent and 99.7 percent, respectively.

Despite a strong legal framework for gender equality, customary law and traditional practices continue to allow for male dominance, undermining women's equal access to assets, services, economic opportunities and decision-making. In all age groups, employment rates are higher for men than for women, with the widest gap observed in the 25-34 age group – corresponding, in most cases, with maternity and child-rearing periods. The labour force participation rate is low for youth; young women being involved in child care, and both young women and young men being migrant workers are some reasons for this. There is a prevalence of women in informal, high-risk labour markets; gender-based violence is common. Women are also under-represented in entrepreneurship – as of 2016, they head only 9.7 percent of the country's 518 collective farms, and only one of the 38 state farms (in Chui province)[6]. Out of the 384,318 combined registered peasant farms and individual entrepreneurs in 2014, women were the official heads of 19.4 percent of them[7]. With regards to livestock ownership, focus groups conducted throughout the country found that 82 percent of men, but only 18 percent of women, reported that they owned livestock[8].

Rural populations depend predominantly on agriculture and livestock for their livelihoods, although remittances and welfare also play an important role as an income supplement. Access to basic public services (e.g. electricity, heating, clean water and sanitation) is lagging in rural areas where most of the poor live; here, rural women and children are most disadvantaged as they have limited access to quality education and health care. The social protection system is limited and insufficiently targeted to adequately assist this group. Thus, in general, rural women and youth constitute some of the largest social groups that are vulnerable to poverty in the country, together comprising close to half of the entire population. Around 2.75-3 percent of the population live with disabilities. They have very limited access to public and private services. Obtaining state-guaranteed public services is

[6] Taken from: FAO. 2016. National Gender Profile of Agricultural and Rural Livelihoods - Kyrgyz Republic.
[7] *Ibid.*
[8] State Agency on Environment and Forestry of the Kyrgyz Republic, UNDP, Center of Research of Public Opinion El-Pikir. 2007. Gender Aspects of Access to Natural Resources. Bishkek p. 16. [in Russian]. Taken from: FAO. 2016. National Gender Profile of Agricultural and Rural Livelihoods - Kyrgyz Republic.

difficult as the government lacks funds and social workers. Economic empowerment is often the first required step for inclusion, but business opportunities are limited.

Three quarters of the total expenditure on agriculture, USD66 million, came from international finance institutions and donors, while Government support to agriculture was about USD22 million in 2015 (in total USD88 million). This amounted to less than 1.5 percent of total public expenditure Of that small amount, 75 percent was spent on irrigation, 15 percent on crops and 2.1 percent on livestock. Moreover, the food safety system does not fully meet standards on targeted markets, significantly reducing the export potential and demand for the high quality primary production of the targeted beneficiaries.

Health, nutrition and food security

Nearly one-quarter of rural households are food and nutrition insecure: 5 percent severely and 22 percent moderately food insecure. Poverty is one of the main causes of poor food consumption and dietary diversity. Food-insecure households have limited access to land and livestock, and are not able to produce more than a few months' worth of food for home consumption (UNDAF 2018). About 20 percent of food insecure households used negative coping strategies, such as reducing meal size and spending less on healthcare. Rural households also resorted to strategies that could jeopardize their livelihoods, such as consumption of seed stocks, decreased purchase of agricultural inputs and sale of livestock.

Though the stunting rate for children under 5 years of age has decreased from 18 percent in 2006 to 12 percent in 2015, the rate is still at a medium level (Global Nutrition Report 2018). There is a serious proportion of micronutrient deficiency among both children and adults, causing significantly higher incidences of anaemia, latent iron deficiency, folate deficiency among women, and iodine deficiency and stunting among children. The rate of anaemia among women in 2016 was 36.2 percent (Global Nutrition Report 2018). Protein and fat intake is inadequate across all regions, except for the high-income households. Energy and protein intake levels of the poorest group were 13 percent and 35 percent lower compared to wealthier groups in 2015 (UNDAF 2018). Most rural households keep livestock (1-3 cows and 10-50 sheep) and grow crops. Livestock have great cultural importance, and play crucial roles as a source of income, in food and nutritional security and as an economic safety net.

Climate Change Vulnerabilities, Impacts and Risks

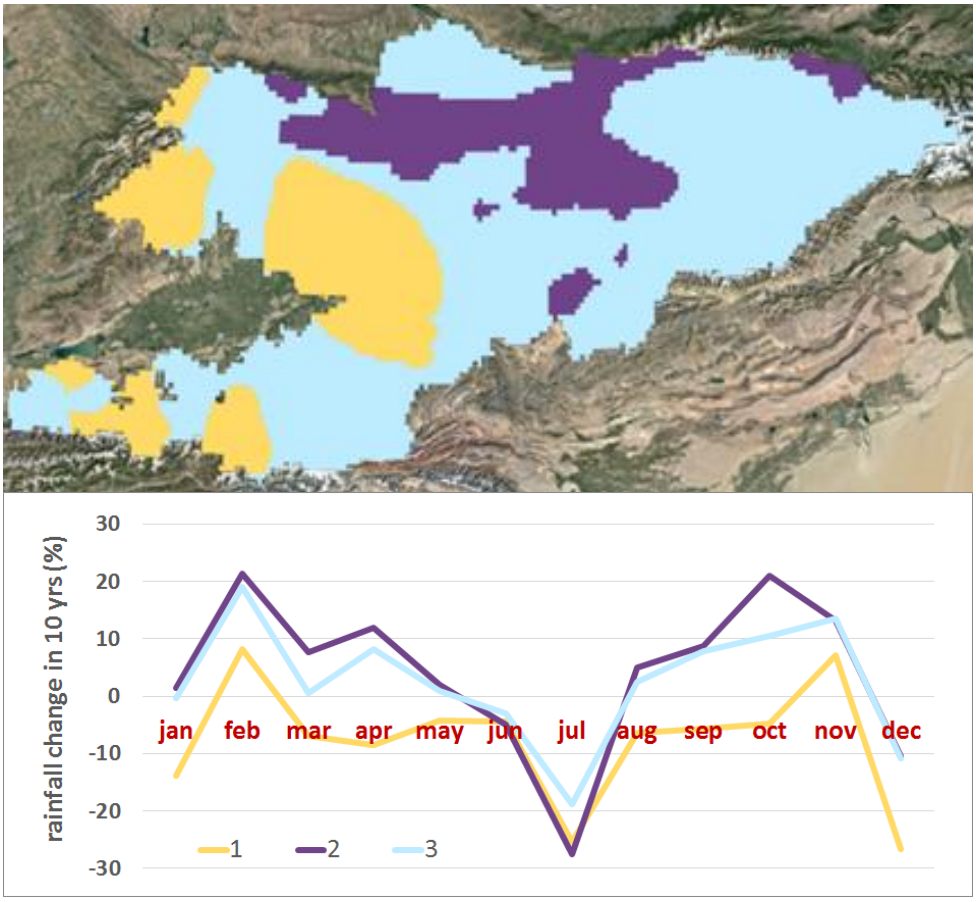
Climate trends and projections

Observed trends: The observed increase in average annual temperature has accelerated significantly in recent decades: the long-term observed trend of 0.0104°C/year more than doubled between 1960-2010 to a rate of 0.0248°C/year, and during 1990-2010 it was already 0.0701°C/year. Almost the same increase in the average annual temperature is observed in all climatic zones and at all altitudes, with the largest increase observed during the cold months. Long-term changes in annual precipitation for the country as a whole have been statistically insignificant, although some regions have seen dramatic changes, both up and down. However, over the past 20 years, the country's average annual precipitation has shown a sharp downward trend in summer, which is the main grazing season for livestock on pastures.[9]

Historic annual and monthly rainfall trends analyzed by IFAD/WFP (2019) show a diverse scenario where overall precipitation is slightly increasing. Monthly rainfall trends show a shift, with increased rainfall during autumn and winter, and a reduction in summer. Of far greater concern is the inter-annual variability of rainfall that is between 15-25% for the

[9] Kyrgyz Republic (2017) Third National Communication to the UNFCCC.

majority of the country. This implies that pasture carrying capacities differ on an annual basis.



***Graphic 1**. Rainfall annual and monthly trends 1986-2016. The map shows three different situations recorded (IFAD/WFP 2019)*

Climate change projections: Under a high emissions scenario (RCP 8.5), the average annual temperatures in Kyrgyzstan will rise considerably, by around 2 C[10] in 2046-2065 and around 3.7 C in 2081-2100, while the average annual precipitation is likely to remain practically unchanged.[11] It is likely that rainfall will become more variable. The country could also become more hazard-prone, with droughts becoming more frequent and prolonged in summer, and floods, including Glacial Lake Outburst Floods (GLOFs) and landslides more frequent in winter. Considering all water basins, there is a significant runoff reduction under all possible scenarios and options for precipitation changes, leading to reduced water availability. For the most unfavourable scenario (RCP 8.5 and annual precipitation reduction by 5 percent), runoff may be reduced by approximately 40 percent by 2100.

Current and future impacts of climate change on the economy and rural livelihoods

Agriculture is highly dependent on climatic factors such as changes in temperature, precipitation, and extreme weather conditions (frost, drought, hail, heavy rainfall etc.) especially in crop production, leading to a crop yield that fluctuates from year to year. Under all four climatic scenarios (RCP 2.6, RCP 4.5, RCP 6.0, RCP 8.5) the arable lands

[10] Relative to the 1986-2005 average
[11] Kyrgyz Republic (2017) Third National Communication to the UNFCCC.

become increasingly arid, with almost all falling under semi-arid to arid zones by 2100.[12] While there are no credible national studies on all aspects of climate change impacts on livestock management, a pasture assessment shows that while changes in yields vary considerably by region, on the whole there is a slight increase in the yield of hayfields and pastures of all types due to the longer growing season.[13] The highest growth is observed in the Batken and Chui oblasts, and the largest decline in yields in the Naryn oblast.

Large proportions of the country are prone to natural and climate-related disasters. Hazards such as drought, land and mudslides, avalanches, squalls, downpours, icing, frosts, breakthrough of glacial lakes, floods, river erosion and earthquakes are all common occurrences in Kyrgyzstan. The vast majority of the population lives in the valleys and foothills of the mountains, where vulnerability to these events is particularly high. On average, natural disasters are responsible for USD30-35 million average annual costs in damages and economic losses, representing 1-1.5 percent of the country's GDP.[14] In general, disasters are more likely in the mountainous areas. There are around 3,900 mudflow- and flood-prone river basins in the Kyrgyz Republic with a length of 10km and more; and 1,153 settlements have registered cases of mudflow with various damages. There are also more than 5,000 active landslides, of which 3,500 are located in the southern regions; 509 settlements (more than 10,000 houses) are exposed to landslides.[15]

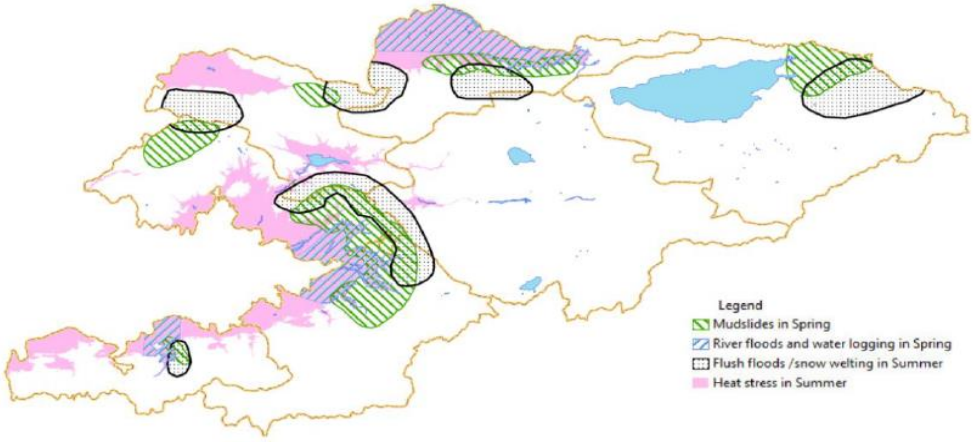
Climate change has negatively affected the productivity of low altitude pastures, and the resilience of forests and animal health. Further increases in mean annual temperature between 2-3ºC are expected for all seasons and regions by 2050 (under RCP 8.5). Winter precipitation is projected to increase and summer precipitation to decrease; rainfed agriculture will be further constrained. Droughts, heat waves and other extreme weather events have already affected the livestock sector and are expected to increase. Climate change-related future hazards are projected to be[16]:

- *Heat stress in summer*: Areas below 1500 masl will be the most affected. Livestock and people in north of Chuy Oblast, western Talas and the Fergana Valley will suffer more heat stress in summer, as maximum temperatures will be more frequently over 30ºC. The increased probability of droughts will reduce the availability of water needed to face heat stress. Furthermore, changes in climate can lead to an increased outbreak of animal diseases.
- *River floods and water logging in spring*: This hazard will mainly have an impact at lower altitudes. Rainfall will be more intense, affecting areas more susceptible to flooding, such as the north of Chuy Oblast and the Fergana Valley. Infrastructures would be more frequently affected, pastures less accessible and livestock could suffer more stress.
- *Mudslides*: At medium altitudes (and in a lesser degree also high altitudes) rainfall will also be more intense in spring, increasing the risk of mudslides that could affect the access of livestock to spring pastures. Areas more vulnerable are the Fergana Range, eastern Issyk-Kul, central Batken, eastern and western Talas, western Jalal-Abad and south and western Chuy.
- *Flash floods and snow melting in summer*: are due to the increase in temperatures together with the increase in winter, spring and autumn rainfall (snow at higher altitudes). Livelihoods will be more impacted by these hazards because of subsequent more difficult access to pastures and damages to infrastructure. Higher altitudes (and, to

[12] Kyrgyz Republic (2017) Third National Communication to the UNFCCC
[13] Kyrgyz Republic (2017) Third National Communication to the UNFCCC
[14] GFDRR 2011
[15] UNISDR (2010)
[16] IFAD (2013)

some degree, medium altitudes) are more susceptible to this hazard, in the Fergana Range, western and eastern Talas, south and western Chuy, central Batken and eastern Issyk-Kul.

Figure 1: Main changes in hazards due to climate change[17]



These multiple interwoven challenges coupled with low availability of quality inputs and extension services restrict agricultural crop production. Additionally, drought and drought-related soil degradation could not only lead to decreased production but add to local climate feedback effects, resulting in less precipitation and worsened drought. These trends, in the lack of adequate institutions to manage the use of fragile natural resources are likely to increase the susceptibility for conflict. However, future climate change impacts are not all negative. Shorter winters, earlier springs and more rainfall during spring are expected to extend grazing periods. This could increase pasture productivity at all altitudes if grazing and herds are well managed.[18]

Multi-dimensional vulnerability to climate change and adaptation deficit

Poverty in the country is high and particularly acute in remote rural areas, where there are limited off-farm job opportunities and poor infrastructure, such as poor condition of roads, unreliable communication systems, and lack of market infrastructure restrict economic productivity. These areas have extremely limited arable land and insufficient irrigation infrastructure. Thus livestock is the primary source of nutrition, income and livelihood support, particularly for the poorest and most vulnerable. Economic insecurity has driven smallholder livestock holders to increase the number of animals to the detriment of pastures, leading to a vicious cycle in which overgrazing and degradation cause lower levels of available forage, which reduces animal productivity, in turn driving up animal numbers as farmers attempt to compensate for reduced productivity, which further exacerbates ecosystem degradation.

Forests and pastures, already under stress due to anthropogenic pressure, are among the most sensitive resources being impacted by climate change. With climate change increasing the rainfall in the spring and autumn, and with waterways removed of their protective forest and vegetative cover, the degradation of natural resource systems due to unsustainable

[17] *Source:* IFAD Livestock and Market Development Programme II (LMDP II). Design Completion Report. WP 6. Climate change impact on pastures and livestock systems – summary report.
[18] IFAD (2013)

agricultural practices will continue to be the key reason for increased frequency and intensity of mudslides and floods, and high levels of poverty in rural areas. On average, 3-4 extreme meteorological hazards (drastic changes of weather, frosts, heavy precipitation) occur annually covering the majority of the country, there are about 7-10 high-impact mudflows and avalanches, and seasonal river floods happen every year.[19] The lack of intervention in this regard is among the main causes of increased exposure of the country to climate induced natural disasters.

Inappropriate tillage practices have eroded soil and led to poor soil fertility on an estimated 770,000 ha of arable land. These factors have damaged soil ecosystem services (chemical, biological, hydrological) and led to reduced ecosystem functions which are critical for resilient agriculture in the face of climate change. In addition, the climatic changes identified, including changing rainfall regime, more torrential rain events, increased heat and drought, potentially emerging diseases are likely to result in increased mortality for livestock.

A significant challenge faced by pastoralists is the projected increasing inter-annual variability of rainfall. While herders have developed coping mechanism to deal with historical variability, these mechanisms may no longer be effective, without additional support, as variability continues to increase into the future.

The urgency and importance of a shift from business-as-usual towards sustainable, forward-thinking natural resources use and management in Kyrgyzstan cannot be overemphasized, for environmental, social and economic reasons, but also to ensure Kyrgyz competitiveness in national and international markets. Diversification to seize business opportunities has not taken place, although there are areas that have good potential, such as increasing poultry production, given the egg shortage and the country's experience in poultry management. Nut and fruit production, organic farming, agri-tourism, honey and other activities could also be scaled-up to improve nutrition, increase pastoralists' incomes and strengthen resilience to climate change.

B. Project area and target groups

The proposed Resilient Pastoral Livelihoods Project-ADAPT (RPLP-ADAPT) project will intervene to reverse the downward spiral affecting rangeland ecosystems and pastoral livelihoods that is increasing vulnerability and reducing adaptive capacity among Kyrgyzstan's pastoral communities. It will do so through support to vulnerable rural households whose livelihoods depend on rangelands and forests, within an innovative and demand-driven approach that is countrywide in scope. RPLP-ADAPT is blended with the larger IFAD-supported Resilient Pastoral Livelihoods Project (RPLP), as described below. RPLP as a whole aims to promote a shift towards alternative income sources and livestock related diversification to reduce grazing pressures on pastures, and to shift livelihood strategies from traditional mobile pastoralism to commercially oriented mobile livestock keeping for export. RPLP has three components: (1) Sustainable community-based integrated forest-rangeland ecosystem management; (2) Strengthening the Food Safety System; and (3) Climate resilient value chains for women and youth. RPLP-ADAPT will contribute to components 1 and 3 of RPLP by increasing the economic incentives for implementation of integrated forest-pasture planning to promote climate resilience. Concrete adaptation activities (pasture restoration and afforestation), funded through grants provided on a competitive basis, will be targeted at climate-vulnerable areas. RPLP-ADAPT will also set up tree nurseries to facilitate effective and climate-resilient reforestation, and carry out related knowledge management activities.

[19] GFDRR (2011) Disaster Risk Management Programs for Priority Countries. World Bank / ISDR.

Within the above scope, RPLP-ADAPT has the following target groups: (i) households practicing mobile extensive livestock rearing; (ii) households extracting forest products; (iii) households producing fodder; and (iv) rural women and youth. These are not mutually exclusive, as a great majority of rural households keep livestock. The target groups belong to the 70 percent of the poor who live in the rural areas, where the average salary in 2015 was one-third of the national average. The poorest households, which constitute about one-fourth of the rural population, are able to produce enough food for the family for only a few months per year. The livelihood fragility of the target groups results from the current (and potential) degrees of forest-pasture degradation, which will be exacerbated by climatic changes, and lack of economic diversification. The livestock production system in the target areas is such that households depend on extensive mobile livestock keeping on the commons; thus, having accessible and healthy rangelands is a necessary precondition for the livelihoods of most households.

The project will concentrate benefits on rural women and youth, who constitute some of the largest vulnerable social groups in the country, together comprising close to half of the entire population. Their economic empowerment is necessary for reducing their own vulnerabilities and for realizing the full potential of the communities and the country. While vulnerable, women and youth also possess capacities to adapt to changing socioeconomic conditions. Women pulled their families through the difficult economic times after the collapse of the Soviet Union, and are already engaged in processing products that are identified as for potential export. The youth have the advantage of IT knowledge and skills, which is critical in today's marketing, as well as dynamism and mobility. Within these broad social groupings, targeting for RPLP as a whole will be based on the existence of a village vision or ability to create one, livelihood fragility, actors in the value chains of livestock-derived foods and non-timber forest products, and social vulnerability.

Key groups through which the project will interact with beneficiaries are Pasture Users' Unions (PUUs), which are a successful model for community-based natural resources management (CBNRM), and state forestry enterprises (Leskhozes). There are currently 454 PUUs and 51 Leskhozes. The PUUs are community-based institutions that are part of local municipalities. They are represented by pasture committees (PC), elected by the community, which set up management plans, collect pasture fees, manage pasture conflicts, maintain pasture infrastructure, provide services (e.g. veterinary services, transporting animals), and represent the interests of livestock-keeping households. Leskhozes are local level forest management entities that oversee management of designated State Forest Fund lands.

The livelihood fragility of the target groups will be assessed to determine the specific PUUs and Leskhozes to target. Factors to be considered are the current (and potential) degrees of forest-pasture degradation and economic diversification, as well as the proportion of the poorest households, defined by cash income level, livestock assets, the size of land per household member, and suitability of family land for agriculture. The project will consider social vulnerability as an important factor in livelihood fragility. Since poverty is directly related to food and nutrition security in Kyrgyzstan, targeting the poorest will also mean targeting the most food and nutrition insecure households. Hazards such as river floods, water logging, heat stress, mudslides and flash floods that are already impacting on rural livelihoods, and which are expected to become more frequent, will be considered when determining livelihood fragility.

The target groups hold the keys to sustainable management of forest-rangeland ecosystems through better grazing and herd management, forest conservation and production of sufficient fodder needed to bridge feed shortages in winter. While placing sustainable management at its core, the AF funding, together with the other sources of funding in the PRLP, aims to shift livelihood strategies of pastoralists towards diversified income sources,

and from traditional mobile pastoralism to commercially oriented, sustainably managed mobile livestock-keeping for export.

To achieve this, the AF funding will be used to support two main approaches, in addition to a learning component:

Sustainable and climate-resilient forest-rangeland management, by providing incentives for sustainable pasture management and integrated pasture-forest planning. AF funding will be used to offer grants to pasture users' unions (PUUs) and to state forestry enterprises (Leskhozes) to fund the activities identified through the process of developing community-based integrated forest and pasture management plans. This forms part of a package of interventions to be implemented by the broader RPLP, through engagement with herding communities to challenge current unsustainable practices, envision future trends and support them in taking further action towards sustainable management in changing climatic conditions. Using IFAD funding the RPLP will facilitate the district-level integration of PUU pasture management plans and Leskhozes management plans, and support the establishment of an effective pasture-forest monitoring system. AF funding will also be used to set up tree nurseries to facilitate effective and climate-resilient reforestation. Consequently, forest-rangelands will be rehabilitated to reduce soil erosion rates and increase vegetation, enhancing ecosystem services (such as water infiltration) to ensure the sustainability of grazing lands under expected negative climate change scenarios.

Adaptive, low carbon and diversified income generation opportunities for women and youth, provided through a grant scheme: This will further reduce the over-reliance on grazing, create employment and promote investment in climate-resilient and green businesses. The umbrella RPLP project will ensure a supportive enabling environment for diversification, efficiency increase and competitiveness by reducing dependency of communities on direct uses of natural resources and improving their livelihoods through benefits gained by improving ecosystem functions and diversification of livelihood opportunities, especially for women and youth. The AF funding will be used to provide - on a competitive basis - grants for women and youth, awarded on the basis of the adaptive and low-carbon credentials of the proposals submitted for grant funding.

Learning and knowledge management: Ultimately, the experience of this project will serve as a driver for dissemination of good practice throughout the country, shifting national agricultural production from a predominantly unsustainable subsistence livestock production to a diversified and climate-sensitive value chain business-oriented economy. The AF funding will be used to enhance and deepen existing provisions for knowledge management (KM) within RPLP, to ensure that valuable lessons on promoting climate-resilient and diversified rural livelihoods through incentivising development and implementation of integrated plans for sustainable rangeland-forestry management are recorded and disseminated.

C. Project Objectives

The **project goal** is to contribute to rural poverty alleviation in the country through increased climate resilience, incomes and enhanced economic growth in rural farming communities. The AF funding will be used to achieve this goal through the following objectives:

- **Objective 1**: Incentivise green investment for forest and rangeland rehabilitation, through grants for sustainable pasture management and afforestation (Component 1)
- **Objective 2**: Develop climate-resilient value chains for women and youth, through grants for adaptive and concrete low carbon activities (Component 2)

- **Objective 3**: Develop and disseminate knowledge on the project's approach to promoting climate-resilient and diversified pastoral livelihoods (Component 3)

Implementation of the AF funding will contribute to the larger IFAD-supported project entitled Resilient Pastoral Livelihoods Project (RPLP), with which RPLP-ADAPT is blended, and which has the identical project goal. The Development Objective of the broader RPLP is improved livestock and pasture health and productivity and enhanced climate resilience of pastoral communities, reflected in improved and equitable returns to pastoral farmers.

The duration of the proposed AF-funded project is five years. Regarding project outreach to direct beneficiaries, the following is envisaged:

- Up to 363 grants to Pasture Users' Unions (PUUs) for concrete activities to reduce pasture land degradation, reaching at least 445,600 households covering approximately 132,500 ha;
- Up to 300 grant proposals for adaptive low-carbon pilots within non-timber value chains will be issued (individuals/groups), reaching at least 3,000 households and covering approximately 750 ha.[20]

The tree nursery development and knowledge management (KM) activities will have reach different target audiences, with benefits from nursery development potentially reaching across the country, while the KM activities are targeted at policy makers, academia and development practitioners.

The proposed project promotes an innovative approach to leveraging investment in ecosystem-based NRM through providing economic incentives for implementation of integrated forest-pasture planning that increases climate resilience and environmental services. Concrete adaptation activities, funded through grants provided on a competitive basis, will be targeted at climate-vulnerable areas – for example, those prone to the most important climate-related hazards, such as river floods, mudslides and water logging in spring, and snow melting in summer.

The project will incorporate a strategy to ensure women's inclusion in value chains and equitable access to opportunities. Such gender strategy will include: identification of nontraditional livestock products and diversification beyond livestock, which will primarily benefit female producers; promotion of women's employment especially at higher levels of the value chains (processing, retailing, etc.); and active communication campaigns (funded from the IFAD grant of RPLP) on potential, new roles of women in livestock value chains.

[20] The broader RPLP will reach at least 557,000 target HHs organised in 454 PUUs and 141 forest user associations and 200 value chains. Usually, only one member per HH will be represented in a small group. At an average of 5.3 members per household, the project will reach at least 2.95 million people.

D. Project Components and Financing

Project/Programme Components	Expected Outcomes	Expected Concrete Outputs	Amount (US$)
Component 1: Green investment for forest and rangeland rehabilitation	Outcome 1.1 Climate-smart afforestation and reforestation enabled	Output 1.1.1 Tree nurseries designed and developed	730,000
	Outcome 1.2 Enhanced afforestation/reforestation and reduced pasture land degradation	Output 1.2.1 Grants implemented for reduced pasture degradation	909,000
		Output 1.2.2: Grants implemented for afforestation/ reforestation	3,970,000
Component 2: Women and youth-driven climate-resilient value chains	Outcome 2.1: Women and youth have increased income through diversification into climate-resilient value chains	Output 2.1.1 Adaptive and low-carbon proposals developed and evaluated	56,000
		Output 2.1.2: Adaptive and emissions reducing grants implemented for diversified climate-resilient value chains	3,000,000
3. Component 3: Knowledge-sharing on promoting climate-resilient and diversified pastoral livelihoods	Outcome 3.1: Knowledge on promoting climate-resilient and diversified pastoral livelihoods disseminated and promoted	Output 3.1.1: High-level dialogues conducted, and policy briefs disseminated on green investment for climate resilience	100,000
6. Project/Programme Execution cost (5 percent)			438,250
7. Total Project/Programme Cost			9,203,250
8. Project Cycle Management Fee charged by the Implementing Entity (8.5 percent)			782,276
Amount of Financing Requested			**9,985,526**

E. Projected Calendar

Milestones	Expected Dates
Start of Project/Programme Implementation	June 2020
Mid-term Review (if planned)	January 2023
Project/Programme Closing	June 2025
Terminal Evaluation	September 2025

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. Project components

The Resilient Pastoral Livelihoods Project-ADAPT (RPLP-ADAPT) project will stimulate green investment to reduce rangeland and forest degradation and to actively improve the condition of these interlinked ecosystems. It will also promote diversification away from livestock, to reduce livestock-related degradation of rangelands and forests and to enhance income streams, thus promoting the climate resilience of the target groups and of the ecosystems on which they depend. The IFAD-funded RPLP project as a whole will seek to address the vicious cycle of productivity collapse in which the Kyrgyz livestock/rangeland ecosystems are trapped, by introducing integrated policy development, planning and implementation of pasture and forest plans, enabling an ecosystem-based approach[21] which, while taking into account connectedness and interdependence of pasture and forest resources, will have synergistic mitigation and adaptation impacts.

Taken as a whole, RPLP will strongly promote transformation "from livestock quantity to livestock quality". The project will pilot institutionalization of Public Private Partnerships (PPP) in ecosystem-based NRM, and leverage the private sector's investments by creating an enabling policy and institutional environment for 'Green Investments' and 'Climate Resilient Value Chains' that will provide economic incentives to the required diversification and enhanced efficiency of existing economic activities in the highly degraded target areas.

The project will build on the achievements of the World Bank Integrated Forest Ecosystems Management Project (IFEMP) in integrated natural resource management, particularly in the Leskhozes; as well as on IFAD's related support to the Government of Kyrgyzstan (GoK). This includes the Livestock and Market Development Programme (phases I and II), with USD21 million in loans and USD21 million in grant financing; and the USD10 million in grant funding under IFAD's Adaptation for Smallholder Agriculture Programme, to finance climate resilience activities.

Under Component 1, the project will stimulate the required incentives by providing concessional investment and technical assistance to break the vicious circle of poor NR management. This will be done largely through the ongoing Competitive Grant Program (CGP) established under the IFAD- and RKDF-funded Access to Markets Project (ATMP), which was launched in 2018 and will run until 2023. Under Component 2, the project will facilitate the development of diverse women- and youth-driven value chains, sensitive to the changing climate pattern and all aimed at ensuring the sustainability of rangelands and forest. Component 3 consists of learning and knowledge management to ensure documentation and dissemination of the project's experiences, for outreach and policy engagement.

Component 1: Green investment for forest and rangeland rehabilitation incentivised

Under this component, AF funding will be used to address the adaptation deficit and promote climate resilient rural livelihoods through (i) supporting the design and establishment of principal nurseries; (ii) providing grants for concrete activities to reduce

[21] The ecosystem approach is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way (Convention on Biological Diversity, 1992).

pasture land degradation; and (iii) providing grants for afforestation/reforestation, and for forest enrichment.

The broader RPLP encompasses a package of interventions to promote sustainable and climate-resilient forest-rangeland management, within which these activities will be located. A transformative participatory approach will be developed and piloted, funded by the IFAD grant of the RPLP, allowing communities to reflect on the past, current and future state of their resources in relation to management, livestock numbers and climate change. The method will help communities envision how they want to manage their resources and take action to halt degradation and increase productivity, thus advancing adaptation.

The broader RPLP project will facilitate this community-based planning, as well as the district-level integration of Pasture Users' Union (PUU) pasture management plans and Leskhozes' forest and pasture plans. Current PUU management plans are not effective as many herders graze their animals in neighboring PUUs and Leskhozes, and management plans fail to take this into account. Recent improvements in the regulatory environment have closed this gap; thus enabling community-based integrated natural resources planning for pastures and forests. Through evidence-based and inclusive processes, relevant institutions including member-based community organizations like the PUUs, forestry enterprises (the Leskhozes), forest users' associations and self-government bodies (*ayil okmutu*) will jointly be able to design integrated, participatory and climate resilient NRM plans. The community-based planning will nurture an ecosystem-based approach to adaptation activities, and place emphasis on understanding the specific climate change adaptation needs of both women and men, as well as youth (female and male).

The IFAD grant in the RPLP will support the State Agency for Environment Protection and Forestry (SAEPF) with project implementation, including through technical assistance (TA). In-depth capacity building of Leskhozes and other stakeholders, funded by IFAD, will be carried out in NRM (resource inventory and assessment, mapping, planning, GIS monitoring, climate resilient management and use practices and reporting), including provision of equipment and tools for Leskhozes in selected districts.

An important aspect of the preparatory work that will be supported by the IFAD grant in RPLP will be the development of a district level planning framework that will bring together the Integrated Natural Resource Management plans (INRMPs) from the Leskhozes with the Community Livestock and Pasture Management Plans (CLPMPs) of the PUUs, into district-level evidence-based Integrated NRM and Climate Resilient Plans (INRMCRPs). Any required regulatory improvements to ensure enforcement of these plans will be identified and captured by the regulatory 'stock take' activity, which will be funded from the IFAD grant in RPLP.

Supported by technical assistance financed by IFAD under the RPLP, PUUs and forest users will have access to grant funding from the AF to stimulate sustainable natural resources use, which contributes to their improved resilience. The direct beneficiaries will be livestock and forest product producers who will benefit from the improved condition of pastures and forests, which will enhance both ecosystem and livelihoods' resilience to climate change. The positive spillover effects of this component will affect the entire project, and indeed the whole nation, which will benefit from carbon sequestration above and below ground, improved soil fertility and stability, reduced land degradation, improved water retention in soils, additional habitat for beneficial fauna such as pollinators, and enriched biodiversity.

Outcome 1.1 Climate-smart afforestation and reforestation enabled

Output 1.1.1 Tree nurseries designed and developed

Under this sub-component, the AF funding will be used to develop tree nurseries. This distinct element will enable climate-smart afforestation and reforestation through the

creation of two new modern forest nurseries to serve the country, together with improved seed collection and handling and improved guidance on best practice for climate-adapted afforestation and reforestation.

It is proposed to establish two nurseries, producing 1.5 million seedlings per annum in spruce forest area and 0.4 million seedlings in walnut forest areas.

Support to the establishment of two tree nurseries to produce climate-resilient varieties of saplings will include IFAD grant-funded training to Leskhoze staff for the establishment of two nurseries, one to serve the north and one to serve the south of the country. Particular care will be needed on the strategic planning of nursery production for the greatest climate resilience of the forests and the sources and quality of reproductive material. Training needs will include: selection of the plot for establishment of nursery, planning of nursery operational scheme, preparation of seeds/cuttings for planting, preparation of seedbeds and lining-out beds (including root undercutting), norms and standards of seeds by species, watering techniques and standards, transplanting of seedling from seedbeds to main nursery beds, norms of lifting seedlings for transportation and the actual transportation itself.

Outcome 1.2 Enhanced afforestation/reforestation and reduced pasture land degradation

To achieve outcome 1.2, the project will support implementation of plans in PUUs and Leskhozes/forest users associations within the target districts through two windows in the Competitive Grant Program (CGP) established under ATMP: one for PUUs and a second for Leskhozes/forest users associations, with the latter focusing on climate adaptation in State Forest Fund (SFF) lands. The majority of the AF funds under this component will go towards the latter – i.e. funding afforestation / reforestation and forest enrichment. Each plan will be assessed in its totality, with the successful scoring plans receiving project funding for priority activities.

Preparatory activities for this, funded by IFAD under the RPLP, will be the preparation of Integrated Natural Resources Management Plans (INRMP) in target Leskhozes; and the development of 20 INRMPs, developed in 20 Leskhozes and ready for grant appraisal. This builds on earlier work under World Bank support, which resulted in the development of 14 INRMPs.

Outcome 1.2 thus entails the implementation of community based integrated forest-rangeland ecosystem management plans, through two windows in the existing GCP:

- Grants to PUUs implemented for reduced pasture land degradation (Output 1.2.1)
- Grants to leskhozes implemented for afforestation/ reforestation and forest enrichment (Output 1.2.2)

A pre-condition for PUUs, Leskhozes and/or forest users associations to access the grants funding is that they adopt sustainable herd management practices within their pasture management plans, with practical measures and incentives in place to bring herd size and composition towards alignment with the carrying capacity of pastures. In addition, the following evaluation criteria will apply (but not be limited to): (i) adaptation potential; (ii) community contribution; (iii) technical feasibility; (iv) financial viability and sustainability; (v) environmental sustainability; (vi) social inclusion; (vii) application of inexpensive but effective techniques (like intensive rotational grazing, soil and water conservation works, erosion control, improved grassland seeds and improved herd health and herd management, including breeds selection and improved community level breeding activities); and (viii) increasing pasture use fee and progressive animal taxation (value of tax per animal head to be raised as an livestock owner increases the number of animals).

Evaluation scores will be linked to these criteria: the higher score - the more chances for PUUs to receive CGP financing. The RPLP specifies mechanisms to avoid elite capture in the awarding of grants, under the GCP.

Participatory criteria setting for evaluation of AF competitive grants to Leskhozes (mainly afforestation) and PUUs (for sustainable land management, erosion control, water stream protection) will be through workshops at both national and regional (oblast and district) levels. The evaluation of grant proposals will be done online by three independent experts. ARIS[22], which is the Community Development and Investment Agency, will then compile these evaluations in reports and these reports will be reviewed by the Selection Committee to ensure that the Competitive Grant Programme (CGP) process, which is a well-established procedure in other countries, is followed. The Selection Committee will consist of representatives of government bodies, public organizations and private sector. More than half of the Selection Committee members should be representatives of agricultural enterprises and non-governmental organizations working in the field of agriculture, such as the Kyrgyz Association of Forest Users (KAFLU), the Kyrgyz Beekeepers Association, EBRD Support Objects for Small Business, the Kyrgyz Veterinary Association (KVA), the Republican Association of Pasture Users (RAPU), etc. The Selection Committee will also include a representative of the Ministry of Agriculture, Food Industry and Melioration (MAFIM), the RPLP Coordinator of the Agricultural Projects Implementation Unit (APIU), and the RPLP Coordinator within the Community Development and Investment Agency (ARIS).

The grants evaluation process will be funded from the IFAD grant of the RPLP.

Output 1.2.1 Grants implemented for reduced pasture degradation

Under this output, the adaptation deficit will be addressed through concrete soil and water conservation works (SWC), erosion control, and water stream protection. These activities will be funded through competitive grants to PUUs.

Resilience of a grazed ecosystem, and of the communities that depend on livestock grazing, depends primarily on the ecological health of the pastures. IFAD-funded project activities under the broader RPLP will guide and support communities, through PUUs and Community Landscape Management Groups (CLMGs), to overcome pasture degradation through adoption of pasture rotation and a change in land use practices through training, mentoring and monitoring. Improved grassland seeds will be promoted. The outputs will increase carbon sequestration and enable local communities to become more resilient to the adverse impacts of climate change. Higher HH incomes are expected from more productive animals (e.g. greater milk yield) and opportunities to invest in alternative or complementary enterprises.

Through the integrated planning conducted under the RPLP, AF-funded interventions will be targeted to vulnerable areas prone to climate-induced hazards such as river floods, water logging in spring, heat stress in summer, mudslides and flash floods. Activities will be funded that secure riverbanks and hillsides to mitigate the risk of floods and mudslides, particularly where critical infrastructure (roads, watering points, shelters, nurseries, etc.) is located, through ecosystem-based adaptation and land restoration measures to enhance ecosystem services that underpin agriculture and livestock productivity. These include:

- Restoration of riverine vegetation (better regulation of water, barrier against floods, improve water quality, source of fodder);

[22] ARIS is the acronym of the Russian name

- Measures to prevent soil erosion, mudslides and floods, including the plantation of bushes and trees that, besides being effective against soil erosion, can act as a barrier against storms and wind, and serve as a source of by-products (fruit, berries, wood);
- Water management measures to favour pasture resilience through increased water retention and regulation and to improve water balance (live fences for shade, measures to retain water in soil, drainage, riverine and water spring restoration, protection through reforestation in water points); and
- Agroforestry activities, for multiple benefits including erosion control soil fertility improvement, and increased supply of tree-based foods for communities.

Box 2. The eligibility criteria of sites selected for Project's interventions take stock of the past experiences in forestry:

- *Spruce forests* in the lower zones (1800-2200 m above sea level) should preferably be done in northern exposures. Above 2200-2500 m above sea level, plantations can be carried out both on the northern slopes, and on the eastern and western slopes. Juniper mainly grows in southern exposures, where no spruce grows.
- *Pistachios:* lower zones in 700-1000 meters above sea level should be selected. These zones are pistachio's natural distribution area. For walnut, the most suitable growing zone is from 1200-2000 m above sea level, mainly in the northern slopes. On higher altitudes, the walnut can grow on the western and eastern exposures, and sometimes on southern exposures.
- *Afforestation/reforestation* planting can target either open areas, clearings, forest fringes, roadsides, as well as in light forest with a crown cover of less than 10 percent, with slope steepness not over 50 percent.
- *For enrichment planting*, the areas where the crown cover is less than 30 percent and/or areas with low-value species are eligible.

Output 1.2.2: Grants implemented for afforestation/ reforestation

The proposed project will provide funds for competitive grants to Leskhozes under this output, with the result being concrete implementation of afforestation/ reforestation and forest enrichment activities.

Activities will include new forests successfully planted on degraded lands and enrichment of degraded forests. All selected tree species are indigenous and non-commercial varieties, which makes their financial returns very low to stimulate private sector investment. Nevertheless, the project envisages the participation of the private sector, especially for local walnut and pistachio tree species, considering their potential participation in the export markets. A detailed approach in forestry interventions is divided into three main areas of work (the technical eligibility criteria are listed in Box 2).

The main tree species have been matched to Leskhoze future conditions in accordance with the scientific knowledge from the Kyrgyz Forest Institute under the Academy of Science and will be validated with SAEPF. The project supports only the planting of endemic or non-invasive domesticated tree species from the Central Asia region, or introduced from the Russian Federation.

Afforestation/reforestation (A/R), covering at least 2,500 ha spread over three years (yr. 2-4) of the project, will be carried out: (a) on SFF land, where this is urgently needed due to high levels of degradation of forest, on failed or delayed reforestation sites, and on open grasslands which have been totally deforested by grazing. The project will use fencing and reforest patches of highlands/grassland between and around the remnants of forest, on roadsides, and extending forest margins. In walnut and pistachio forests households sign up to long-term leases (5 years renewable) to plant/sow new plantations with a combination of selected varieties that are (i) early-maturing (3rd year) to bear nuts; and (ii) early-ripening to yield harvest in August; and (b) as private tree planting activities through long-term leases from the municipalities (mostly in combination of fruit trees and endemic deciduous trees and

trees for fuelwood) on State Land Fund[23] (SLF) low-productive lands, riparian zones and landslide-prone areas around floodplains.

For effectiveness, the investment model takes into account the region, altitude, climate, tree species, forest legal status, custodianship and the competent partners. Three investment models refer: (a) Leskhoze-centered investments in high-altitude spruce and juniper forests (long rotation timber forest, but devoid of direct economic incentives to private partners); (b) Collaborative Forest Management (Leskhozes, private individuals, households) through long-term leasing of walnut and pistachio forests on SFF lands from Leskhozes to households: here economic interest is high and competition is intense; and (c) Individuals investing in tree-planting on SFF and SLF lands, with a long-term lease tendered from the local governments or *ayil okmotu* (mix of poplar, willow, fruit trees, etc., to combine short-term income with long-term timber, fuelwood and carbon benefits).

Forest enrichment will be carried out, covering at least 1,500 ha planted throughout three years (yr. 2-4) of the project. Activities will support the restoration of moderately degraded growing forests through enrichment planting of walnut and spruce in selected areas.

Thus the main targets under this output are the following:

- 2,280 hectares afforested / reforested with survival rate > 65 percent
- 1,500 hectares of forest enriched (mainly walnut and spruce)
- 750 hectares reporting tree density increase of over 20 percent through enrichment
- At least 5 percent of Leskhoze lands (designated as forest or grazing) to show an improvement in the Land Dynamic Productivity (LDP) category, from the project inception date

Centrally, SAEPF is also building a forestry management information system, which RPLP will seek to leverage for use in PUU areas. A centralized internet mapping system is being developed which RPLP will extend to PUU pastures to maximize data sharing and enhance coordination. The IFEMP is also assisting SAEPF to organize the National Forest Inventory, including a full land cover classification of the country. Using this as a platform, RPLP will work to ensure remote sensing staff benefit from knowledge sharing and capacity building related to this task.

Component 2: Women and youth-driven climate-resilient value chains

Component 2 will develop climate-resilient value chains for women and youth, through grants for adaptive, concrete low-carbon activities. The aim will be to support resilient, diversified and low-carbon rural livelihoods, through grants for the implementation of adaptive and GHG emissions reducing pilots, which are all aimed at ensuring the sustainability of rangelands and forests. Up to 300 grant proposals for adaptive and low-carbon pilots who participate in non-timber value chains will be issued (individuals/groups), reaching at least 3,000 households. At least 50 percent of the grants will be for women, and the remaining 50 percent for youth, of which at least 50 percent will be for female youth. Thus at least 75 percent of the grants provided through Component 2 will be for women or female youth.

Economic diversification is an important adaptation strategy that can take the pressure off pasturelands, and allow for enhanced ecosystem resilience to climate change. However, scant artisanal and market knowledge and skills have hampered the development of value chains in Kyrgyzstan. There has also been insufficient involvement of the vulnerable groups

[23] SLF or State Land Fund lands comprise the area managed by MAFIM where majority of pastures are located)

who possess the potential to benefit more from value chain development, such as women and youth. The project will support economic diversification that will promote adaptation in rural livelihoods as well as reduce GHG emissions from pastoral livelihoods, supported through training and capacity development that will be funded from the IFAD grant of RPLP. Use of renewable energy in value chain development will be promoted through the grants.

Outcome 2.1: Women and youth have increased income through diversification into climate-resilient value chains

The IFAD grant under RPLP will fund a comprehensive capacity development process across a number of carefully selected value chains (non-timber forest products, apiculture, etc.), from planning to marketing, and will support the establishment of direct formal linkages between producers and corporate buyers through Productive Partnerships (PPs) at sub-district level with Leading Entities (LEs). Such buyers, national or international, shall operate on end markets and have strong green-economy orientated and/or social corporate policies. Certification of non-timber forest products (NTFPs) according to FSC standard and other voluntary international standards such as HACCP, Fair Trade, Organic and GlobalGAP to enable direct linkages with end markets will be the driving force towards a paradigm shift in forest use and local economies growth. The FSC certification will guarantee gender equality in employment practices, training opportunities, awarding of contracts, processes of engagement and management activities.

Output 2.1.1 Adaptive and low-carbon proposals developed and evaluated

Under this output, the AF will fund the evaluation of adaptive and low-carbon proposals for climate resilient value chains.

The broad criteria for value-chains to be supported are those that feature (i) adaptation potential, (ii) a low-carbon footprint, (iii) solid market potential, (iv) financial viability, and (v) environmental sustainability, while promoting the value of Kyrgyz agri-food products. These include NTFPs such as edible tree nuts and dried fruits and berries, aromatic herbs and spice, specialty products (e.g. capers), and apiculture products. Other value chains that can complement the income of rural smallholders, as an incentive for diversification, will also be considered, including off-farm activates such as inclusive education[24]. The RPLP will also support operations that aim to reduce pressure on pastures through accelerated offtake of animals.

Climate risk assessment for the value chains to be supported through the AF grants will be funded through the IFAD grant to RPLP, and will be followed by the evaluation of the grant proposals conducted by three independent experts, which will be funded by the AF.

IFAD, under the RPLP, will fund a value chain and end markets assessment that will support the successful implementation of this outcome. This will include:

- End markets assessment, covering domestic (livestock, fodder, services) and key international markets for the Kyrgyz non-timber forest products (NTFPs) and periodical monitoring of market trends, including supply planning calendars and gaps, existing bottlenecks and risks;
- Market prospecting campaign on national and international markets, to identify potential buyers operating in premium segments and fostering environmental and social responsibilities as their corporate commitment; and

24 Specialized courses organized for children with disabilities during the summer grazing on alpine pastures.

- Resource inventory, using geospatial tools followed by a thorough Market Development Plan (will include introduction of Geographic Indication, especially for the walnut of Arslanbob Forest).

Other supportive activities will include a countrywide business prospecting campaign with national and international end-market buyers fostering environmental responsibility as part of their own development strategies; and awareness campaigns on market opportunities and requirements, including the design and rollout of the Kyrgyz Tree Nuts and Dried Fruits information and trade portal.

Output 2.1.2: Adaptive and emissions reducing grants implemented for diversified climate-resilient value chains

Component 2 will support selected value chain actors to move towards greener and more resilient operations, higher transparency and competitiveness of the marketed products. This will be achieved through greater value chain integration, market-driven certification and robust marketing strategies. The IFAD-funded activities of RPLP will support (i) capacity building of producers (mainly women and youth) in skills and technologies on the sustainable use of forests, improved livestock management practices and linkages to the corporate markets; and (ii) establishment of Productive Partnerships at ayil aimak[25] level bringing together producers and processors. Increased access to financing for women and youth and other stakeholders will be provided via RKDF co-financing, and the AF-funded competitive grants for adaptive and emissions reducing pilots (for women and youth).

The adaptive and GHG emissions reducing grants will be for nut and berry orchards, and for promotion of renewable energy (RE) in value chain development. Further discussions will be held during full project formulation to determine the most appropriate RE technologies to support for value chain development. Other indicative financing purposes for herders, farmers and forest users include small harvesting equipment, vacuum and solar driers, small agricultural machinery, greenhouses, nurseries for tree plantations and commercial orchards, agricultural produce processing (e.g. oil presses), etc. The maximum amounts of USD10,000 will be established for low-carbon (orchard planting and promotion of renewable energy in value chain development) grants, with the beneficiaries contributing at least 50 percent of their own or borrowed resources.

The support to climate-resilient value chains is aligned with the IFAD-funded work on integrated forest-pasture management planning, and aims to promote and implement private investments under the integrated management plans for forest-rangeland ecosystems.

Component 3: Knowledge-sharing on promoting climate-resilient and diversified pastoral livelihoods

Knowledge sharing is an important component of any adaptation project. It can promote outscaling to new geographical areas as well as upscaling through influencing policy processes in relevant sectors. Component 3 of RPLP-ADAPT is designed to capture and disseminate lessons learned regarding the innovative green investment / incentives for climate resilience aspects of the project. This will be pursued through high-level dialogues, in conjunction with Kyrgyz universities / research institutions, multilateral agencies, NGOs, and technical networks to ensure broad outreach; as well as through targeted policy briefs on the project experiences and lessons regarding e.g. developing climate-resilient value chains.

[25] Sub-district (translation from the Kyrgyz)

These targeted knowledge management (KM) elements will be conducted within the broader learning and knowledge management activities of the RPLP, which will promote a learning continuum, a need-based knowledge management mechanism, and a flow of communication on innovations and best practices. The RPLP project will contract a specialised M&E/KM service provider to set up the M&E/KM system. KM will enable the country programme to contribute to a credible knowledge base of practical and actionable know-how that can be used to better address challenges tackled by the RPLP. It will comprise a project website for communication of basic information about project features and updates on implementation, platforms for data management to maintain statistics, a repository of knowledge products such as reports and studies for analysis and official reporting, as well as brochures, booklets and audiovisual communication for awareness raising and training purposes.

Outcome 3.1: Knowledge on climate-resilient and diversified pastoral livelihoods disseminated and promoted

Output 3.1.1: High-level dialogues conducted, and policy briefs disseminated on green investment for climate resilience

Supported by the AF funds, the proposed project will document and share the innovative green investment / incentives for climate resilience aspects of the project. This will be pursued through high-level dialogues, in conjunction with Kyrgyz universities / research institutions, multilateral agencies, NGOs and technical networks, to ensure broad outreach; as well as through targeted action research and policy briefs on the project experiences and lessons regarding e.g. developing climate-resilient value chains. Experiences of integration of gender and local and indigenous knowledge will be included in the knowledge products and dialogues that will be conducted with stakeholders, including policy makers.

The KM process will include recording how traditional and local knowledge was incorporated into the development of climate-resilient value chains, and how it was blended with scientific information. The net result will be enhanced knowledge amongst policy makers, academia and practitioners on innovative strategies for promoting climate-resilient and green investment in the rural areas, which can then be taken up into policy and practice to enhance the outreach of the AF-funded actions.

Further information is provided in Section E below.

B. Economic, social and environmental benefits

Economic benefits

Higher household incomes are expected from more productive animals (e.g. greater milk yield) and opportunities to invest in alternative or complementary enterprises. The main project benefits would go to households in the 454 PUUs areas that constitute the rural population of the whole country. It is estimated that 557,000 households would benefit directly and indirectly from the broad RPLP project's interventions (70 percent of the targeted population). A high proportion of the target population would be reached by pasture management activities with the largest project investment part going directly to the beneficiaries in the form of competitive grants, training and technical assistance. The benefits accruing to the primary target population will be reflected in physical productive assets and built knowledge capacities.

More specifically, for the AF-funded proposed project, key economic benefits will flow to project beneficiaries through the following mechanisms:

- Grants to PUUs implemented for reduced pasture land degradation (Output 1.2.1)

- Grants to leskhozes implemented for afforestation/ reforestation and forest enrichment (Output 1.2.2)
- Grants for adaptive and emissions reducing pilots implemented for diversified climate-resilient value chains (Output 2.1.2)

Employment creation: Up to 300 grant proposals for adaptive low-carbon pilots within non-timber value chains will be issued (individuals/groups), reaching at least 3,000 households. This has the potential to diversify the income portfolio of rural households by creating additional job opportunities. It is estimated that about 1,187 full time jobs will be created.

Social benefits:

Empowerment through business skills development: The main pathway under the proposed project for empowerment of the socially vulnerable is to equip them with business skills and knowledge and further to provide business opportunities. Business training will be given to the communities whose vision includes changes in the everyday roles of women and the youth, including the minority communities. Without a community vision, their new activities are unlikely to be supported by other members of the communities and lead to economic development of the village. In order to ensure ownership and sustainability, the final beneficiaries will be chosen through their business plans, which women and youth formulate.

Increased gender equality and greater benefits for women: With respect to the climate-resilient value chains grants, the project will specifically target women, and female youth, towards addressing existing gender inequalities with respect to access to and benefit from value chains. Particular attention will be given to female youth who face higher unemployment and youth who are not in employment, education or training. Women and girls with disabilities suffer more from discrimination, violence, extreme poverty and poor health services. Though the project will not explicitly target people with disabilities, it aims to create awareness and encourage the inclusion of people with disabilities through its competitive grants scheme for green businesses of youth and women.

Enhanced nutrition: The project will contribute to tackling the underlying causes of malnutrition through increasing agricultural production, promoting sustainable natural resource management and supporting income-generating opportunities for women and youth.

Environmental benefits:

Enhanced carbon sequestration, improved soil fertility and stability, reduced land degradation, improved water retention in soils, additional habitat for beneficial animals, and enriched biodiversity: Supported by technical assistance financed by IFAD under the RPLP, PUUs and forest users will have access to grant funding from the AF to stimulate sustainable natural resources use, which contributes to their improved resilience. The direct beneficiaries will be livestock and forest product producers who will benefit from the improved condition of pastures and forests, which will enhance both ecosystem and livelihoods' resilience to climate change. The outcomes of this component will provide environmental benefits for the whole nation, as reforestation/afforestation and SLM activities in pastureland will improve soil fertility and stability, reduce land degradation, and improve water retention in soils. These effects will serve to increase carbon sequestration. Increased areas of forests and rehabilitated riparian areas will provide additional habitat for beneficial animals such as pollinators, and will enrich biodiversity.

More climate-resilient ecosystems: The project will support the production system to move towards sustainable pastoralism, with improved integrated planning that promotes better herd- and grazing management under a changing climate; this is the most adapted

agricultural production system in the mountainous environment of Kyrgyzstan. Healthy and better-managed rangeland-forest ecosystems have a greater capacity to absorb climate-induced shocks. They will result in reduced landslides and less severe floods, which will in turn increase the resilience of ecosystems. The improved ecosystems will also give herding communities greater flexibility to react to climatic shocks, which is essential for greater resilience.

Reduced reliance on and degradation of pastures: The proposed approach of Component 2 will support diversification and thereby reduce the over-reliance on pasture resources. The approach will enhance efficiency, productivity and competitiveness as well as the climate-resilience of existing economic activities that are based on forest-rangeland ecosystems. Given that the main *selection criteria for the women- and youth-driven value chains* will include (i) adaptation potential, (ii) a low-carbon footprint, (iii) solid market potential, (iv) financial viability, and (v) environmental sustainability, it is clear that they are being designed to deliver environmental benefits, in addition to the social and economic benefits they will deliver.

Reduced GHG emissions: The AF project, while primarily designed to promote adaptation, will also deliver mitigation benefits in the project targeted areas, and for the country as a whole. The estimation of the net balance from all greenhouse gases (GHGs) expressed in CO2 equivalent that would be emitted or sequestrated within the overall RPLP project's interventions was made and the social price of carbon was included to the economic analysis. According to the calculations in EX-ACT, the project showed a total balance of -7,606,480 tCO2-equivalent, which means that the project will have more sequestration of carbon rather than emission. The overall carbon benefits improved the ERR from 17.3 percent to 24.6 percent and the NPV from USD 14.7 million to 27.6 million. The reduction in GHG dues to the proposed AF project's activities will be tracked during implementation.

In addition to the above economic, social and environmental benefits, the project is being designed to avoid or mitigate negative impacts, in compliance with the Environmental and Social Policy of the Adaptation Fund, and including in relation to aggravating gender inequalities. The Environmental and Social Management Plan (ESMP) that will accompany the full project proposal will spell this out in detail. As a start, the following measures will ensure that project activities are designed and implemented in a way that does not cause negative social or environmental impacts:

- Inclusive and representative community involvement in planning and implementing the project, including monitoring project activities; consultation and engagement with beneficiary communities, including vulnerable groups;
- Strong collaboration with relevant ministries, both in activity design and implementation;
- Technical support will be sought from experts in the field, especially in relation to sensitive or specialized services, including gender and protection issues as well as afforestation, forest enrichment, and SLM;
- Implementation in accordance with national standards and safeguards articulated in various strategies and guidance documents; and
- Complaints and feedback mechanism established to get feedback from communities on the project, with established protocols for the resolution of complaints.

C. Cost-effectiveness of the proposed project

Given that the AF project forms part of the overall IFAD-supported Resilient Pastoral Livelihoods Project (RPLP), it has a high degree of cost effectiveness, as it therefore does not have to fund all of the necessary support activities to enable the competitive grants that the AF would finance, such as capacity development for integrated planning, design of the grants schemes, or design and implementation of geo-referenced monitoring. Thus the vast majority of the funding requested from the AF can go directly towards implementing concrete adaptation measures on the ground, through the competitive grants mechanism.

The proposed project will adopt the most efficient and cost-effective, nature-based approaches to enhancing climate resilience through its afforestation, reforestation and forest enrichment activities. These multi-purpose activities will stabilize soils and slopes, decrease evaporation, enhance soil fertility, increase carbon sequestration, and provide for additional income flows through planting of climate-resilient and productive tree species, that will increase the availability of high-value NTFPs which can form the basis of strongly remunerative value chains. The SLM activities carried out via the competitive grants to PUUs will increase the condition, resilience and value of pasture lands through controlling soil erosion, increasing water retention, and preventing mudslides and floods. Planting riverine vegetation will strengthen flood defences, and protecting/ rehabilitating water points will be cost-effective measures to adapt to changing water availability. Increased afforestation will ameliorate the micro climate in localities, and will provide shelter for biodiversity and for livestock to withstand the projected increased frequency and intensity of heatwaves.

An alternative considered in the design of the proposed project was to have this as a stand-alone project, with its own parallel project staff, project management procedures, and implementation arrangements. However, given that RPLP was already in the design process, with guaranteed funding from IFAD, and would be implementing the integrated forest-pasture planning, operating competitive grants and, fully mainstreaming climate change into its operations, it would have been decidedly not cost effective to establish the proposed project as a stand-alone one.

As a blended project, fully integrated into RPLP, the proposed project will benefit from sharing resources and structures. This partnership will boost the cost-effectiveness of both interventions, particularly as there will be a common management structure and a linked M&E framework. Other benefits expected are improved coordination and communication, and the application of common procurement and supervision procedures (reducing costs). The vast majority of the project execution costs, and most of the technical assistance needed to enable the implementation of the competitive grants process, will be borne by the IFAD-funded RPLP. These funds are guaranteed to be provided by IFAD. Regarding TA and facilitation costs, the proposed AF project would only be funding TA for the design of the principal nurseries, the costs of evaluation of the adaptive and low-emissions grants, and a small amount to supplement the IFAD-funded KM to be carried out by the RPLP.

The total investment and incremental recurrent project costs, including physical and price contingencies, of the overall RPLP project are estimated at about USD 65.5 million. This is comprised of an IFAD loan of USD 23.03 million (35.2 percent of the total project costs), an IFAD grant of USD 8.52 million (13 percent of the total project costs), both of which represent guaranteed funding. It is also expected that RKDF would allocate USD 10 million of a credit line for the project, which would finance *about 49 percent of Component 3 of the overall RPLP (USD 10.0 million).* The possible IsDB's parallel financing counts for about USD 20 million that would be directed for irrigation rehabilitation works benefiting RPLP's Community Fodder Seed Funds. The contribution from the GoK in cash will be USD 60.0 thousand); the GoK will also be covering all taxes and duties estimated at around USD 0.74 million. The project beneficiaries' contribution is estimated at USD 13.16 million, which

would finance: about 30 percent of Component 1 (USD 10.16 million) and 14.6 percent of Component 3 (USD 3.0 million). Beneficiaries will be contributing both in cash and in kind with various ratios depending on the type of activity. All of these amounts represent, in effect, co-financing for the funds requested by the GoK from the AF.

Project design has included working with groups that have a track record of success, for cost effectiveness. Thus, for example, by supporting PUUs, the project is supporting a successful and representative model for community driven NRM. Kyrgyzstan also has a rich landscape of NGOs including CAMP Alatoo, Kyrgyz Association of Forest and Land Uses (KAFLU), Association of Jaid Committees (AJK) and the Aga Khan Foundation - all experienced in environmental management and climate change. Implementation on the ground of the proposed project will be through these experienced and technically sound facilitators, thus further advancing cost effectiveness.

D. Consistency with national / sub-national sustainable development strategies

The project is closely aligned with and in support of the GoK's policies, regulatory framework and strategies to ensure strong country ownership, specifically with the National Strategy for Sustainable Development (NSSD) 2018-2040 and associated Action Plan 2017-2022 and the United Nations Partnership for Development Assistance Framework (2018–2022) for Kyrgyzstan. Regarding the NSSD, the RPLP project will contribute to the goal of enhancing export competitiveness and becoming a leading supplier of high quality agricultural produce.

The project will contribute to the following national priorities: i) reduce poverty and inequality; ii) improve food security and nutrition; iii) stimulate agricultural and livelihood development and create decent work conditions; iv) build household resilience and boost incomes; and iv) improve integration into the international and regional trading systems with strong multiplier effects in rural areas. This project is well in line with the Government's draft Strategy for Agricultural Development 2017-2022. In particular, the project supports the Strategy's objective to increase exports through the introduction of new technologies and innovative products, and the Strategy's emphasis on providing support to meat and dairy sub-sector value chains.

Kyrgyzstan ratified the United Nations Framework Convention on Climate Change (UNFCCC) and submitted its (Intended) Nationally Determined Contribution in 2015. The project is aligned with the (I)NDC that places agriculture, land use management and forestry among the key sectors to ensure both adaptation and mitigation to climate change. National climate change strategies and action plans have been developed for various sectors including emergency situations, biodiversity and forestry, and agriculture and water management.

The project is strongly aligned with the Priorities for Adaptation to Climate Change in the Kyrgyz Republic till 2017 (updated to 2020)[26]. Specifically, the RPLP responds to almost all of the following identified priority adaptation measures for the livestock sector:

- Introducing rational range utilization and monitoring techniques for the various types of pastures (summer, spring/fall, winter);
- Rehabilitating degraded rangelands in mountains, deserts and flooding areas and forests; improvement of vegetative cover with climate-adapted species/varieties,

[26] http://www.lse.ac.uk/GranthamInstitute/law/priorities-for-adaptation-to-climate-change-in-the-kyrgyz-republic-till-2017-updated-to-2020/

including silvo-pastoral systems with tree plantation for improving soil humidity and shade for livestock in summer;

- Establishing guaranteed fodder reserves based on efficient irrigation, and growing/making use of adapted fodder crops; supporting fodder production in irrigated lands and haymaking in rainfed areas;
- Improving livestock productivity (beef production) through rapid fattening; developing climate-proof infrastructures to cope with climate hazards, such as shelters for livestock, wind protection, water supply systems and water points in vulnerable areas, thermal insulation in stabling facilities, etc.;
- Improving and maintaining infrastructures to facilitate access to and services in mountain pastures; controlling livestock numbers;
- Providing targeted technical assistance on adaptation priorities to strengthen the implementation of Community Pasture Management and Livestock Development Plans (CPMLDPs); and
- Building capacity (policy makers, extension agents, NGO, land users, researchers) and research.

The project is also consistent with the priority adaptation measures on biodiversity and forest conservation, namely afforestation (spruce forest, forest pasture, riparian stripes); preservation and restoration of wetlands, as habitat for local biodiversity but also important for ecosystem resilience especially in light of climate change; and promotion of collective forest management and social forest conservation principles.

Climate change is also addressed in other national responses to international policy, including the United Nations Convention to Combat Desertification (UNCCD) and the United Nations Convention to on Biological Diversity (CBD). The National Action Plan (NAP) and its Activity Frameworks for Implementing the UNCCD in the Kyrgyz Republic for 2015-2020 has many actions on land degradation that are highly relevant – and in fact, directly linked – to climate change adaptation measures for the agricultural and livestock sectors, and particularly for pasturelands. The project is aligned with the Kyrgyz Republic's Third National Communication to the UNFCCC, which states that projected climate change will negatively impact the national economy, agriculture, and natural ecosystems, and identifies an urgent need for adaptation activities. The project is aligned with and will help to achieve the Kyrgyz Forest Service's long-term objective of increasing forest cover to 6 percent by 2025-2030. The project is aligned with the country's Climate Investment Programme (2018), which highlights the importance of improving the resilience of forestry, and of improving food security from agriculture, including through land management.

Kyrgyzstan's formal legal framework supports women's equality. Its constitution mandates equality between women and men, and prohibits gender-based discrimination. The current policy on gender equality is articulated in three core documents: the National Strategy on Gender Equality to 2020 (adopted in 2012, it is the country's first long-term gender strategy); a National Action Plan on Gender Equality for 2015-2017; and the National Strategy on Sustainable Development for the Kyrgyz Republic for 2013-2017. Furthermore, the 2003 law on Basics of State Guarantees for Ensuring Gender Equity grants equal rights and opportunities to women and men, and guarantees gender equality in governance structures. The proposed project will have a strong focus on promoting gender equality, and will target only women and youth for the grants for climate-resilient value chain activities.

Beyond the alignment with national strategies, the proposed project is aligned with IFAD policies and corporate priorities, including the strategic objectives of the COSOP approved by IFAD Executive Board in April 2018: (i) increase smallholders' equitable and sustainable

returns; and ii) enhance smallholders' resilience to climate change. The project is also aligned with IFAD's strategic vision and comparative advantage[27], particularly its three SOs: Increasing poor rural people's productive capacities; Increasing poor rural people's benefits from market participation; and Strengthening the environmental sustainability and climate resilience of poor rural people's economic activities.

E. Compliance with relevant national technical standards

Project activities will be carried out in full compliance with national regulations and standards on environment, labour and occupational safety and are not expected to have adverse impacts. The project will comply with national approved methodologies for natural resource management, including forest and pasture management plans. The proposed interventions will adhere to national technical standards that are in force, particularly those relating to afforestation, reforestation, forest enrichment, land use and agricultural management.

The MAFIM is an authorized state body at the central level responsible for defining policy in regulating state pasture land use (except rangelands under the SFF). The MAFIM is charged with developing technical and legal regulations on pasture use, pasture land tenure recommendations, pasture condition standards, and quality assessment methodologies and monitoring. It is understood that the MAFIM is currently partnering with FAO to develop further the relevant technical standards. The project will keep abreast of these developments and ensure compliance.

F. Measures to avoid duplication of project with other funding sources

There are various climate change-related projects and programmes operating or planned in Kyrgyzstan; consequently, it is essential to find synergies and avoid duplication, so that scarce resources are effectively used.

Regarding potential synergies and partnerships, the project will collaborate with ongoing and future interventions of the World Bank (WB), Islamic Development Bank (IsDB), FAO, GIZ[28] and European Bank for Reconstruction and Development (EBRD). At the GOK's request, IFAD is negotiating a possible provision for co-financing with the Russian-Kyrgyz Development Fund (RKDF) (amount and terms of financing to be confirmed). IFAD is also discussing with the IsDB joint interventions in Naryn Oblast regarding the support of fodder production – the IsDB through irrigation rehabilitation works and IFAD by further promoting Community Fodder Seed Funds (CFSF) initiated under LMDP.

Regarding avoiding duplication, there are two proposals under consideration by the Green Climate Fund (GCF): one on livelihoods diversification as adaptation to climate change (WFP); and the other on improvement on forest-rangeland ecosystems as a means to mitigate climate change (FAO). The RPLP project will reformulate some of the activities in the event of approval of either of the two GCF proposals for complementarity and effective use of funds[29]. This reformulation of activities will not affect any of the activities proposed to be funded by the AF in this Concept Note.

Regarding gender, of particular interest is the joint project 'Rural Women Economic Empowerment Kyrgyzstan (JP RWEE)' of UN Women, FAO, WFP and IFAD, implemented in

[27] As elaborated in IFAD's Strategic Framework 2016-2025
[28] Deutsche Gesellschaft für Internationale Zusammenarbeit
[29] Activities related to the evidence-based country M&E of pasture and forest management, georeferencing strategy, support to SAEPF under RPLP will be reconsidered, and the freed funds reallocated to forest and pasture rehabilitation investments

Kyrgyzstan by the Community Development Alliance (CDA). The project has successfully piloted the Gender Action Learning System (GALS) in Kyrgyzstan, and has also built up a network of trainers. The RPLP project will build on these successes and make use of the network of trainers for the IFAD-funded supportive activities.

E. Learning and knowledge management

Component 3 is specifically designed to capture and disseminate lessons learned regarding the innovative green investment / incentives for climate resilience aspects of the project. This will be pursued through high-level dialogues, in conjunction with Kyrgyz universities / research institutions, multilateral agencies, NGOs, and technical networks to ensure broad outreach; as well as through targeted action research and policy briefs on the project experiences and lessons regarding e.g. developing climate-resilient value chains. It will include learning related to integrating gender into the innovative women- and youth-driven climate resilience activities, and achieving gender equality results for climate resilience and adaptation. The KM process will include recording how traditional and local knowledge was incorporated into the development of climate-resilient value chains, and how it was blended with scientific information. The net result will be enhanced knowledge amongst policy makers, academia and practitioners on innovative strategies for promoting climate-resilient and green investment in the rural areas, which can then be taken up into policy and practice to enhance the outreach of the AF-funded actions. The proposed project will contract a specialised KM service provider to provide short-term technical inputs into designing and implementing this process.

These targeted knowledge management (KM) elements will be conducted within the broader learning and knowledge management activities of the RPLP, which will promote a learning continuum, a need-based knowledge management mechanism, and a flow of communication on innovations and best practices. Local knowledge will be valued and south-south tech-exchange opportunities will be identified and promoted in order to strengthen further pastoralist communities' development capabilities. The project will engage in developing collaborative actions with research institutions, academic institutions, and higher learning institutions for the purpose of pursuing research-action work on topics of prime relevance to pastoral communities such as sustainable rangeland /herd management, breed improvement, animal health, coping mechanisms to respond to climate-induced shocks such as drought or landslides, fodder production, socioeconomic studies in pastoral areas, including piloting innovative business development approaches. The RPLP project will contract a specialised M&E/KM service provider to set up the M&E/KM system. KM will enable the country programme to contribute to a credible knowledge base of practical and actionable know-how that can be used to better address challenges tackled by the RPLP. It will comprise a project website for communication of basic information about project features and updates on implementation, platforms for data management to maintain statistics, a repository of knowledge products such as reports and studies for analysis and official reporting, as well as brochures, booklets and audiovisual communication for awareness raising and training purposes.

F. Consultative process

To prepare the proposed project, the design team conducted stakeholder and community consultations from the 26 March till the 16 April 2019. Stakeholder consultations mainly consisted of bilateral meetings with a wide range of government departments, NGOs, UN agencies and research institutes with whom the design team discussed different issues with regard to project objectives, activities and implementation. Most meetings followed a similar scheme: (i) An IFAD design team member explained the purpose of the meeting and presented an outline of the new project; (ii) stakeholder representatives presented or gave an update on their institution's objectives, activities and capacities; (iii) the design team

and the stakeholder representatives discussed e.g. good practices, project activities and potential areas of collaboration. Stakeholders consulted included the following: Committee on Agricultural Policy, Water, Environment and Regional Development of the Parliament of the Kyrgyz Republic (PKR); Ministry of Agriculture, Food Industry and Melioration (MAFIM); State Agency for Environmental Protection and Forestry (SAEPF); Ministry of Finance (MOF); Ministry of Economy (MOE); State Inspectorate for Veterinary and Phytosanitary Security (SIVPSS); Russian-Kyrgyz Development Fund (RKDF); Roza Otunbaeva's Initiative; Congress of Women of the Kyrgyz Republic; Agricultural Projects' Implementation Unit (APIU); Community Development and Investment Agency (ARIS); Department of Pastures, Livestock and Fisheries (DPLF) under MAFIM; Association of Pasture User Unions (AKJ); Kyrgyz Association of Forest and Land Users (KAFLU); Kyrgyz National Agrarian University (KNAU); Kyrgyz Scientific-Research Institute of Livestock and Pasture (KSRILP); Kyrgyz Scientific-Research Veterinary Institute (KSRVI); Kyrgyzhydromet; State Design Institute for Land Management (Kyrgyzgiprozem); Kyrgyz Agrobiocenter (KABC); the country branch of Aga Khan Foundation; Rural Development Fund (RDF); CAMP Alatoo Public Foundation; and Association of Entrepreneurs (JIA). Please see Annex 1 for a full list of stakeholders consulted, and the main issues discussed.

During community consultations for the design of this project, the design team met with members of 34 of the 454 Pasture User Union (PUUs) in three regions (Issyk Kul, Jalal-Abad and Osh region), as well as with local government officials, Leskhoz staff, agro-enterprises, and veterinarians. Please see Annex 2 for a full list of the PUUs visited. The consultations were organized by the Community Development and Investment Agency (ARIS) under the leadership of the mission leader of the IFAD design team; a woman from Central Asia with deep knowledge of pastoral systems. Meetings with PUUs followed a similar scheme: (i) An ARIS representative introduced the IFAD design team and explained the purpose of the meeting; (ii) a representative of the Pasture Committee (in most cases the chairman or woman) presented statistics of the PUU, current and past activities, and the main challenges and needs; (iii) the design team and PUU members further discussed how best to support PUUs and good pasture governance. Focus groups with youth and women were held with 10 PUUs (10 focus groups with women and 6 with youth). If time allowed, nearby sites (e.g. storage facilities of a seed fund or forested areas) were visited. Several key issues raised during community consultations were the following:

- *Pasture infrastructure*: All visited PUUs benefited from previous IFAD-funded projects that enabled them to establish/rehabilitate pastures infrastructure (e.g. foot bridges, water points, rural roads, vet shops, bakery pits, etc.), but the consulted PUUs stated that more investments are needed in order to effectively manage forest-pasture rangelands and react to a changing climate. More investment are also needed in veterinary services, facilities and equipment. Leskhozes stated that they lack staff, equipment and funds to effectively manage and monitor the vast forest-rangeland areas under their control.
- *Pasture management*: PUUs reported that grazing plans were setup and pasture quality was monitored through monitoring plots. Some PUUs established no-grazing zones on highly degraded pastures. Though much effort has been made, pasture management plans are still not efficient and hardly monitored. Management plans don't reflect that many herders bring their livestock to neighboring PUU areas or Leskhoz areas. Better pasture management practices mentioned by PUU members included fencing, smaller herds, bringing more animals to summer pastures, increasing fodder production and keeping livestock longer in stables in spring in order to reduce grazing pressures.
- *Herd management*: All PUUs reported that livestock numbers are increasing and measures have be to taken in order to keep a healthy balance between available

pasture resources and livestock heads. Pastures around settlements were the most affected by overgrazing. Apart from sensitizing their communities, very few pasture committees have taken concrete steps to reduce livestock numbers. The most frequently suggested approach to tackle the problem was artificial insemination. Many livestock owners hope to improve the quality of their breeds allowing them to produce more. The rational is that better breeds require more labor and this limits the number of livestock a household can keep.

- *Access to forest-rangelands under the control of Leskhozes*: Many herders take their animals to areas under the control of Leskhozes. There are various types of arrangements between Leskhozes, PUUs and individual herders. Joint planning did not occur and most PUUs were not aware of new regulation allowing for the joint planning of PUU areas and Leskhozes. Some PUUs issued concerns of not knowing if they will be able to access Leskhozes in the coming year. The prospects of joint planning with neighbouring Leskhozes and PUUs was welcomed by Pasture Committee members.
- *Climate change*: PUUs were aware of climate change and could provide examples of how changing weather patterns affected their activities. One PUU reported that landslides blocked their way to remote pastures, forcing herders to take a 150km detour that stresses animals and is costly. Dry spells were a major concern as it reduces forage availability. Weather forecasts were provided to PUUs, but an early warning system was not in place.
- *Institutional sustainability*: PUUs aim to be self-sufficient and raise enough funds (manly through pasture fees that are low, but are slowly increasing) to establish/maintain the services they are offering to their members. One PUU stated that they have made "80% of the way", but still need support to be fully independent from donor funding.
- *Livestock related diversification and alternative economic activities*: PUU members shared their ideas of economic opportunities that they viewed as promising. The most frequently mentioned future economic developments were dairy processing facilities and slaughter houses that were lacking in many rural areas. Other promising businesses included producing honey, collecting and packaging medicinal herbs and wool processing. Tourism was frequently mentioned in the Issyk Kul Region.
- *Gender and youth*: PUUs stated that women and youth play a great role. The main challenge is that employment opportunities are lacking. Fewer youth want to herd animals. Due to the low salaries, most youth are not interested in working as a Pasture Committee member. PUU members stated that they see the most potential for women and youth in processing animal products and alternative economic activities (see point above). Participants mentioned that is important to create incentives for youth to work in the livestock sector. Examples included offering services (e.g. housing, fuel, transport, child care) on remote pastures to make it more attractive for young families to go there.

Furthermore, IFAD has been active in Kyrgyzstan since 1996. During the last eight years each mission visited 20 to 40 PUUs in different parts of the country. The proposed project, and the RPLP of which it is part, are based on the IFAD country strategy from 2018 that also included extensive stakeholder consultations.

G. Justification for funding requested, focusing on the full cost of adaptation reasoning

Component 1: Green investment for forest and rangeland rehabilitation

Baseline scenario:

Currently, forests in Kyrgyzstan are threatened by low natural regeneration from grazing and haymaking; illegal logging and excessive collection of firewood; overharvesting of fruits and nuts; and pests and disease. Pastures are overgrazed in the low and middle altitudes due to poor grazing and herd management and the increase in the number of animals. In addition to these anthropogenic pressures, forests and pastures are among the most sensitive resources being impacted by climate change. With climate change increasing the rainfall in the spring and autumn, and with waterways removed of their protective forest and vegetative cover, the degradation of natural resource systems due to unsustainable agricultural practices will continue to be the key reason for increased frequency and intensity of mudslides and floods, and high levels of poverty in rural areas. Moreover, there is a lack of integrated planning and management of pastures and forests, and little integration of climate change issues into planning. At the same time, vulnerability to climate change of poor rural farmers in Kyrgyzstan is exacerbated by severe land degradation, as this has led to a downward spiral of productivity collapse in which the Kyrgyz livestock/rangeland ecosystems are trapped, which results in increased poverty and a reduced adaptive capacity of individuals and communities to address the increasingly felt impacts of climate change. Continuously growing stocking rates of animals and patchy landscape management of forests and pastures will unavoidably lead the country into a deadlock. In the absence of concerted adaptation action, the livelihoods of women, youth and other vulnerable farmers will continue to suffer from the productivity collapse in the rural areas, which will be increasingly exacerbated by the increase in natural hazards and general heating and drying trend associated with climate change.

Additionality:

The project will stimulate green investment through the grants mechanism, guided through integrated forest-pasture planning frameworks, to reduce rangeland and forest degradation and to actively improve the condition of these interlinked ecosystems, thus providing a renewed and resilient base for strengthened and climate-resilient livelihoods of women, youth and rural smallholders.

With AF funding, the project will intervene to prevent and halt land degradation, and rehabilitate already degraded land, using sustainable land management (SLM) practices. Since healthy land is less vulnerable to climate extremes, implementing SLM will help rural areas to become more resilient to climate change. The project will implement SLM and erosion control measures that protect land and livelihoods from extreme weather events, such as mudslides, flashfloods and heatwaves thus removing some of the immediate climate risks for vulnerable smallholder farmers.

Climate-smart afforestation and reforestation will be enabled through the creation of two new modern forest nurseries to serve the country, together with improved seed collection and handling and improved guidance on best practice for climate-adapted afforestation and reforestation. There is increased evidence that restoring ecosystems through reforestation will play a central role in the Paris Agreement target of achieving 1.5°C, and that mitigating climate change helps sustain the natural systems our societies and economies rely on. A recent study has confirmed that the restoration of trees, as will be carried out under

Component 1 of the AF project, remains among the most effective strategies for climate change mitigation.[30] Thus the adaptation actions of the AF project will have synergistic mitigation effects.

Adaptation to climate change is a process, which, in order to be sustainable, must be embraced by communities themselves. Therefore communities will be actively involved through PUUs who are represented by elected pasture committees. Other groups such as forest users will also participate in planning processes and will work with state forestry agencies (Leskhozes) and other government authorities at local and district level, in developing the climate-integrated NRM plans that the project will facilitate, through IFAD funding under RPLP. Taken together, the activities of Component 1 will provide PUUs and forest users with knowledge and skills, via the IFAD grant, and with access to grant funding from the AF, to stimulate sustainable natural resources use, leading to improved condition of pastures and forests that enhances resilience to climate change of ecosystems and livelihoods.

Component 2: Women and youth-driven climate-resilient value chains developed

Baseline scenario:

Rural areas, where two-thirds of the country's population and 70 percent of poor people reside, remain underdeveloped, with few off-farm jobs. Poverty is one of the main causes of poor food consumption and dietary diversity: nearly one-quarter of rural households are food and nutrition insecure, with 5 percent severely and 22 percent moderately food insecure. Diversification to seize business opportunities, which is an important adaptation mechanism, has not taken place, exacerbating the downward productivity spiral linked to overstocking of livestock. Rural women and youth constitute some of the largest vulnerable social groups in the country, together comprising close to half of the entire population. Their general poverty and vulnerability is associated with a reduced capacity to adapt to climate change. Without concerted action to build their economic empowerment, they will remain vulnerable and unable to realize their full potential as individuals, and to contribute to their communities and the country. There is scant artisanal and market knowledge and skills, as well as insufficient involvement of the vulnerable groups who possess potential, for the development of value chains in Kyrgyzstan. Women and youth in particular lack access to value chains, and the necessary skills and empowerment to participate meaningfully in them. As the effects of climate change continue to impact upon pastoral livelihoods, failure to increase income potential through value chain development will result in rural livelihoods facing increasing risks (e.g. drought), reduced productivity and increasing poverty, which may further drive exclusion. Rural areas will continue to experience growing ecosystem degradation.

Additionality:

Component 2 will develop climate-resilient value chains for women and youth, through grants for adaptive and low-carbon concrete activities. The aim will be to support resilient, diversified and low-carbon rural livelihoods, through grants for the implementation of adaptive and GHG emissions-reducing pilots, which are all aimed at ensuring the sustainability of rangelands and forest. Up to 300 grant proposals for adaptive and low-carbon pilots who participate in non-timber value chains will be issued (individuals/groups), reaching at least 3,000 households.

Economic diversification is an important adaptation strategy that can take the pressure off pasturelands, and allows for enhanced ecosystem resilience to climate change. The project

[30] Bastin et al, 2019, see https://science.sciencemag.org/content/365/6448/76

will moreover ensure that the diversification serves to promote adaptation, reduces GHG emissions from pastoral livelihoods, results in solid markets being developed, is financially viable, and promotes environmental sustainability, as these are all criteria that will be used to evaluate grant proposals. Women and youth in the project target areas will be supported through training and capacity development, to be funded from the IFAD grant of RPLP, to understand relevant climate risks, and develop and implement those successful grant proposals. Climate risk assessment will be an integral part of the value chain and end markets assessment, to be funded by IFAD under the RPLP, which will support the successful implementation of this outcome.

Component 2 will promote diversification away from livestock, to reduce livestock-related degradation of rangelands and forests and to enhance income streams, thus promoting the climate resilience of the target groups. Targeted value chains include non-timber forest products (NTFP) such as edible tree nuts and dried fruits and berries, aromatic herbs and spice, specialty products (e.g. capers), apiculture products, but also other value chains that can complement the rural smallholders' income (as an incentive for diversification), including off-farm activities such as inclusive education. Certification of NTFPs according to FSC standard and other voluntary international standards such as HACCP, Fair Trade, Organic and GlobalGAP to enable direct linkages with end markets will be the driving force towards a paradigm shift in forest use and local economies growth. The FSC certification will guarantee gender equality in employment practices, training opportunities, awarding of contracts, processes of engagement and management activities.

The net result of AF support under Component 2 will be economic diversification into climate-resilient value chains for women and youth that will promote adaptation in rural livelihoods as well as reduce GHG emissions from pastoral livelihoods.

Component 3: Knowledge on promoting climate-resilient and diversified pastoral livelihoods developed and disseminated

Baseline scenario:

Currently there is limited knowledge on the possibilities for green investment to unlock sustainable natural resource use and climate-resilient value chains in the rural areas of the Kyrgyz Republic. This is related to the limited concrete project action in this regard, as well as to the lack of attention paid to documenting and disseminating lessons learned from any innovative actions. The result is that stakeholders at different levels across the country lack the knowledge of how to enable and support diversified climate-resilient rural livelihoods.

Additionality:

Supported by the AF funds, the proposed project will document and share the innovative green investment / incentives for climate resilience aspects of the project. This will be pursued through high-level dialogues, in conjunction with Kyrgyz universities / research institutions, to ensure broad outreach; as well as through targeted policy briefs on the project experiences and lessons regarding e.g. developing climate-resilient value chains. The net result will be enhanced knowledge amongst policy makers, academia and practitioners on innovative strategies for promoting climate-resilient and green investment in the rural areas, which can then be taken up into policy and practice to enhance the outreach of the AF-funded actions.

These targeted knowledge management (KM) elements will be conducted within the broader learning and knowledge management activities of the RPLP, which will promote a learning continuum, a needs-based knowledge management mechanism, and a flow of communication on innovations and best practices.

H. Sustainability of project outcomes

The proposed project will benefit from the detailed exit strategy of the RPLP, with which it is blended. An important element of this exit strategy is that RPLP builds on three other recent IFAD-financed projects on livestock, pastoral livelihoods and access to markets. RPLP extends past project technical interventions which improved pasture usage and responds to recent government understanding about pasture – forest land management by several ministries. Thus, RPLP adapts and extends technical investments and social governance of pastures, livestock improvement and access to export markets.

The system for awarding grants on a competitive basis that will be established in the target municipalities, and through which most of the AF investment for concrete adaptation activities will flow, will persist after project closure, for use in future with other donor or national funds. The focus on women in particular as beneficiaries of the competitive grants, and the empowerment of them to move up the value chain and generate a larger percentage of income from climate-resilient value chain activities, will assist with ensuring that gender equality is advanced, as needed for sustained results and climate resilience. Likewise, the support for youth to increasingly participate in and benefit from climate-resilient value chains and entrepreneurial activities is a key element that will promote project sustainability. This is so as youth will gain skills and economic opportunities that will enable them to not only run successful and sustainable NR-based businesses, but also to be empowered on climate change impacts and effects, in order to safeguard their livelihoods into the future.

The RPLP project will develop the capacity of the government agency that has the mandate for land cover monitoring so that an impartial, accurate and consistent view can be maintained of pasture condition under a changing climate. The project will ensure the national monitoring unit is well equipped, preferably using license-free Free Open Source Software for analysis and the hardware and general setup is of a good standard, staffed by well trained and engaged professionals. Implementing specific regulations if needed, the project will link the outputs of this monitoring to concrete financial or infrastructure incentives at the level of municipality or PUU and these incentives will be sustainably financed from an increase or a reallocation of revenue budgets or PUU fees. Providing additional support to the PUUs will assist with sustainability, as these organisations have been very successful since their introduction in 2009. Many of them are now able to generate 80% of their own funding through pasture fees), and thus would not need much additional support to become fully self funded.

The AF-funded forest nurseries established under the project will be established on a sound financial footing with adequate human resources and expertise. A concept of internal charging for seedlings will incentivize the nursery to be demand led and self-sustaining. Nursery planning processes will be established within the wider forest planning framework to ensure seedling production (which needs to commence 1-2 years in advance of when the seedlings are needed) is aligned with demand and there are feedback mechanisms to encourage high quality production. This approach will ensure their long-term viability.

Global tree restoration remains the most effective climate change solution to date. However, climate change will alter this potential tree coverage.[31] Therefore, to ensure effectiveness and sustainability, the varieties of trees to be promoted for afforestation/reforestation and forest enrichment under Component 1 have been matched to Leskhoze future climatic conditions, guided by the Kyrgyz Forest Institute under the Academy of Science, and will be further validated with SAEPF.

[31] Bastin et al, 2019; see https://science.sciencemag.org/content/365/6448/76

Activities under Components 2 will strengthen the sustainability of the investment into integrated ecosystem management carried out under Component 1 by creating economic opportunities with limited risk, in order to decrease pressure on and degradation of natural resources in the project intervention areas, thus contributing also to the enhanced resilience.

The project will have country-wide and demand-driven outreach, so that the results of the IFAD-funded Livestock and Market Development Programmes I and II can be further strengthened, and so that other areas may benefit from the experience of LMDP as well, in order to stimulate the economic incentives and ensure long term impact beyond the project's investment.

I. Overview of environmental and social impacts and risks identified

During design of the proposed project, a Review Note of the Social Environment and Climate Assessment Procedures (SECAP) was completed.[32] This is a tool used by IFAD to assess the social, environmental and climate change issues relevant for the project, in order to identify how the project might impact them and how IFAD's mainstreaming themes (gender, youth, nutrition, environment and climate change) could be addressed through an integrated approach. The SECAP Review Note draws on information obtained through consultations during the project design mission with pasture users, women and youth, government officials, donors, UN agencies and non-government organizations. Other relevant sources include policies, country strategies, statistics, research articles. Additional background information on social and environmental issues was collated during the SECAP Preparatory Study of the Country Strategic Opportunities Programme (COSOP) of IFAD for Kyrgyzstan (2018).

According to the IFAD procedures, the project is considered to be an Environment and Social category B, meaning that it is not expected to have any significant adverse environmental or social implications. The project's climate risk classification is considered High, according to the IFAD procedures, given that Kyrgyzstan's mountainous landscape is subject to extreme climatic events, such as flooding, mudslides and drought.

Under Component 1, the project will contribute to the sustainable governance and integrated management of rangeland-forest resources in changing climatic conditions. It will support the creation of two new modern forest nurseries to serve the country, together with improved seed collection and handling and improved guidance on best practice. As the activities will be specifically targeted at enabling climate-adapted afforestation and reforestation, they will not have any adverse environmental or social effects. Localised impacts during the construction of the nurseries will not be significant, and will be managed under the project ESMP, to be developed in detail during full project formulation, to mitigate any localized negative effects. The climate-smart afforestation, reforestation, and forest enrichment to ensure effectiveness and sustainability, the varieties of trees to be promoted for afforestation/reforestation and forest enrichment under Component 1 have been matched to Leskhoze future climatic conditions, guided by the Kyrgyz Forest Institute under the Academy of Science, and will be further validated with SAEPF. Regarding the grants to PUUs for pasture restoration, the AF-funded activities will be restricted to those that are proven to be effective in reducing environmental and social impacts, while securing riverbanks and hillsides to mitigate the risk of floods and mudslides, through ecosystem-based adaptation and land restoration measures. These will include restoration of riverine vegetation; planting bushes and trees to control soil erosion; live fences; localized measures

[32] This was completed for the RPLP project as a whole, and specifically includes the activities proposed for AF funding.

to retain water in soil; reforestation around springs and water points; and agroforestry activities, for multiple benefits including erosion control soil fertility improvement, and increased supply of tree-based foods for communities. The project ESMP will set out measures for implementation and monitoring of these activities to reduce any minimal potential social or environmental impacts.

Under Component 2, investments in pasture restoration and grants to support businesses of rural women and youth will be only be financed if they can demonstrate that they contribute to social and environmental sustainability, as well as to climate resilience. They will comply with national regulations on environment, labor and occupational safety and are not expected to have adverse impacts.

The activities of the grants to women and youth for climate-resilient value chains under Component 2 are not yet fully defined at this early stage, as they will depend upon the outcomes of grant evaluation procedure. The initial value chain assessment for the overall project will include assessing climate risks and prioritising adaptation options, as outlined in IFAD's 'How to do Note' on climate change risk assessments in value chain projects (IFAD 2015). Grant proposals will go through a competitive process and will be evaluated according to selected criteria including carbon footprint and adaptive potential. Proposals for businesses with good prospects of being profitable, a low or positive carbon footprint, socially inclusive and with a high adaptation potential are most likely to succeed. Resource-efficient technologies will be promoted through the trainings and the grant scheme; this will include green technologies such as solar dryers, drip irrigation, solar pump (for off-grid operators), and other low-carbon processing methods. All activities to be funded through the competitive grants to women and youth will be subject to the IFAD environmental and social risk screening tool as per IFAD's Environmental policy. The ESMP for the project will provide further details on this assessment process, and on how compliance with the AF Environmental and Social Policy, as well as the Gender Policy, will be fully assured.

Component 3 KM activities will not have any negative environmental or social impacts.

Moreover, the project, and the RPLP with which it is blended, mirrors the priority strategic actions set out in the SECAP Background Study of IFAD's COSOP for Kyrgyzstan, and is in accordance with the SECAP's Guidance Statement 6 on rangeland-based livestock production. The design has been guided by IFAD's Toolkit on engaging with pastoralists.

In addition to the above IFAD procedures, the entire project was screened for environmental and social risks against the 15 principles outlined in the AF's Environmental and Social Policy, as set out in the table below.

An Environmental and Social Management Plan (ESMP) and Grievance Mechanism will be included in the full project proposal, as is required by the AF and IFAD. The ESMP designed for this project will track identified risks, or any new risks, ensuring they are properly monitored, evaluated, reported on, and addressed. A gender assessment will be carried out during the development of the full project proposal, to fine-tune the activities of the proposed project so that they promote gender equality and women's resilience to climate change.

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Compliance with the Law	**X**	**Low/no risk**: Relevant national, regional and district authorities have been and will continue to be consulted during the proposal development process to ensure compliance with all relevant laws. The project is implemented by the GoK who host the PMU and assign or recruit its staff. The project will help to implement the new legal provisions from 2018 on the use of pasture lands located within the SFF, including the basis of cooperation between pasture users, local government and SFF
Access and Equity		**Low/no risk**: Through in-depth consultations with communities and stakeholders prior and during the proposal development process and throughout project implementation, this project will ensure that no activity will interfere with access to basic services or exacerbate existing inequities. This project will promote the equitable access to activities and assets by women and youth in targeted communities.
Marginalized and Vulnerable Groups		**Low/no risk**: Marginalized and vulnerable groups – especially women and youth - will be consulted during the proposal development process to ensure that their identified threats, priorities and mitigation measures are reflected. This project will empower vulnerable groups to make decisions on concrete adaptation actions, valuing their traditional and local knowledge.
Human Rights	**X**	**Low/no risk:** This project affirms the rights of all people and does not violate any pillar of human rights.
Gender Equity and Women's Empowerment		**Low risk**: The project will incorporate a strategy to ensure women's inclusion in value chains and equitable access to opportunities, including identification of non-traditional livestock products and diversification beyond livestock to benefit women; promotion of women's employment at higher levels of the value chains; and active communication campaigns on potential, new roles of women. At least 75 percent of the beneficiaries of Component 2 will be women or female youth. A gender assessment will be conducted during full project formulation to deepen the strategy and fine-tune activities.
Core Labour Rights	**X**	**Low/no risk**: The project will ensure respect for international and national labour laws and codes, as stated in IFAD's policies.
Indigenous Peoples	**X**	**No risk**: No stakeholders or communities have raised concerns around the violation of indigenous peoples' rights. Despite this, the project affirms the rights of indigenous peoples in line with IFAD's policy on engagement with indigenous peoples.
Involuntary Resettlement	**X**	**No risk**: The project will not lead to involuntary resettlement.
Protection of Natural Habitats		**Low/no risk**: By implementing ecosystem-based adaptation activities such as agroforestry and water conservation efforts, the project will ensure the protection of natural habitats. In addition, consultations with government stakeholders, community leaders and communities will ensure that conversion or degradation of critical natural habitats (including those that are legally protected, officially proposed for protection, recognized for their high conservation value, or recognized as protected by local communities) is avoided. Component 1: perform social and environmental screening of activities.
Conservation of		**Low to moderate risk**: Agroforestry and tree planting activities could

Biological Diversity		lead to a deterioration of biological diversity if tree species are not correctly selected (e.g. inadvertent introduction of invasive species) and diversified. To ensure this risk is addressed, the project will prioritize local species and multi-species plantations and avoid the use of non-native and invasive species. Additionally, these activities will be designed in close collaboration with the SAEF. Component 1: perform social and environmental screening of activities.
Climate Change		**Low to moderate risk**: The project will act as a "carbon sink", based on ExAct analysis. A significant percentage of project funding will go towards grants for value chain activities that are low-emissions, as well as adaptive. The project area is, however, highly vulnerable to the impacts of climate change. Thus all project components and activities are designed to contribute to increasing local capacities to sustainably face climate change in the long-term and climate variability in the short and medium terms. Component 1: Validate tree species for afforestation; Component 2: carry out climate risk assessment of value chains to be supported.
Pollution Prevention and Resource Efficiency	**X**	**No risk**: The project will not release pollutants. Energy efficiency, minimization of material resource use, and minimization of the production of wastes will be embedded in project design.
Public Health	**X**	**Low/no risk**: The project will not have any detrimental effect on public health. The project will contribute to tackling the underlying causes of malnutrition through increasing agricultural production, promoting sustainable natural resource management and supporting income-generating opportunities for women and youth.
Physical and Cultural Heritage		**Low/no risk**: The project will seek to understand the role of traditional and local knowledge and how it is blended with scientific information for climate resilience. The community-based planning under the RPLP project will highlight this, and the KM component will document this. Consultations and engagement with stakeholders and communities during implementation will ensure that any physical cultural heritage present on project sites is identified and potential negative impacts are avoided through project design.
Lands and Soil Conservation		**Low/no risk**: Project activities will not pose risks to land and soil conservation, as support to the PUUs in component 1 will specifically promote sustainable land management and erosion control. Afforestation activities will additionally support protection and enhancement of lands and soil. Component 1: perform social and environmental screening of activities.

PART III: IMPLEMENTATION ARRANGEMENTS

Part III is N/A for Concept Notes, thus does not need to be completed

A. Describe the arrangements for project / programme implementation. *Clearly specify how women and men will be equitably involved in the project / programme implementation. To the extent possible, women and men should be equally represented in the steering committee and project/programme management unit. At least one member of the steering committee and of the project/programme management unit should be gender competent. Executing entities similarly should be gender competent or, if not, text should indicate that WFP will support the executing entities in acquiring the necessary gender competencies.*

B. Describe the measures for financial and project / programme risk management.

C. Measures for environmental and social risk management
in line with the Environmental and Social Policy of the Adaptation Fund.

D. Monitoring and evaluation arrangements
provide a budgeted M&E plan. *Clearly specify how the monitoring and evaluation arrangements are gender-responsive.*

E. Project results framework
including milestones, targets and indicators. *Include gender equality indicators and ensure that all person-related indicators are disaggregated by sex and age group.*

F. Project alignment with the Results Framework of the Adaptation Fund

Project Objective(s)[33]	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
Project	**Project Outcome**	**Fund Output**	**Fund Output**	**Grant**

[33] The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

Outcome(s)	Indicator(s)		Indicator	Amount (USD)

G. Include a detailed budget with budget notes, a budget on the Implementing Entity management fee use, and an explanation and a breakdown of the execution costs.
The budget should include allocations (human and financial) to the activities that will advance gender equality.

H. Include a disbursement schedule with time-bound milestones.

PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

A. Record of endorsement on behalf of the government[34] *Provide the name and position of the government official and indicate date of endorsement. If this is a regional project/programme, list the endorsing officials all the participating countries. The endorsement letter(s) should be attached as an annex to the project/programme proposal. Please attach the endorsement letter(s) with this template; add as many participating governments if a regional project/programme:*

Arsen Ryspekov, Deputy Director, State Agency on Environment Protection and Forestry, National Designated Authority for the Adaptation Fund	*Date: 1 August 2019*

B. Implementing Entity certification *Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/programme contact person's name, telephone number and email address*

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans (National Strategy for Sustainable Development (NSSD) 2018-2040, NDCs, National Action Plan (NAP), Climate Investment Plan) and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.	
Margarita Astralaga Margarita A. Astrálaga *Director, Environment, Climate, Gender and Social Inclusion Division (ECG), IFAD* Implementing Entity Coordinator	
Date: 2 August 2019	Tel. and email: m.astralaga@ifad.org; +3906 5459 2151
Project Contact Person: Nicolas Tremblay	
Tel. And Email: n.tremblay@ifad.org; + +20-109-165-4484	

6. Each Party shall designate and communicate to the secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.

ANNEX 1: ENDORSMENT LETTER OF THE NDA OF KYRYGYZSTAN

THE STATE AGENCY
ON ENVIRONMENT PROTECTION
AND FORESTRY
OF THE KYRGYZ REPUBLIC

КЫРГЫЗ РЕСПУБЛИКАСЫНЫН
ОКМӨТҮНӨ КАРАШТУУ
КУРЧАП ТУРГАН ЧӨЙРӨНҮ КОРГОО
ЖАНА ТОКОЙ ЧАРБАСЫ БОЮНЧА
МАМЛЕКЕТТИК АГЕНТТИК

Bishkek, 142 Gorkiy Str.
Ph.: + (996-312) 54-50-57, Fax: + (996-312) 54-50-91
E-mail: min-eco@elcat.kg, envforest@elcat.kg

Бишкек шк, Горький көчөсү, 142
Тел. + (996-312) 54-50-57, Факс: + (996-312)54-50-91
Эл.дарек: min-eco@elcat.kg, envforest@elcat.kg

№ 04-2-28/865 от 01.08.2019г.

To: The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

Ref: Endorsement for the Resilient Pastoral Livelihoods Project (RPLRP)

In my capacity as Designated Authority for the Adaptation Fund in the Kyrgyz Republic, I confirm that the above project proposal is in accordance with the government's national priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in Kyrgyzstan.

Accordingly, I am pleased to endorse the above project proposal with support from the Adaptation Fund for an amount of USD 10 million. If approved, the project/programme will be implemented by IFAD and executed by the Ministry of Agriculture, Food Industry and Melioration (MoAFIM) and by the State Agency on Environment Protection and Forestry, and other Government agencies as well as ARIS.

Sincerely,

Mr. Arsen Ryspekov
Deputy director
National Designated Authority for the Adaption Fund
the Kyrgyz Republic

ANNEX 2: PEOPLE AND ORGANIZATIONS MET DURING THE DESIGN MISSION OF RPLP AND RPLP-ADAPT (26 MAR - 16 APRIL 2019)

Organization	Name	Title	Sex	Address/Phone number	Issues discussed
State Agency for Environmental Protection and Forestry (SAEPF)	Rustamov Abdykalyk Alibekovich	Director	Male	Gorky Street, 142 +996(312)545057	Presented/discussed project concept and received feedback
State Inspectorate for Veterinary and Phytosanitary Security (SIVPS)	Jumakanov Kalys Turatbekovich	Director	Male	MAFIM, floor 5 +996(312)624034	Discussed capacity and investment needs of the department under RPLP component 2
National Association of Pasture Users of Kyrgyzstan "Kyrgyz Jaiyty" (AKJ)	Egemberdiev Abdimalik Abdikaarovich	Director	Male	Togolok Moldo Street, 55a +996(701)001002	Received update on the association's current activities; discussed investment needs of PUUs and the association
State Design Institute for Land Management Kyrgyzgiprozem	Kasmaliev Ajibek Kadyrkulovich	Director	Male	Orozbekov Street, 44, 4th floor +996(555)020858,	Learned about the institute's current mandate and capacities; discussed options of supporting M&E during RPLP implementation
Kyrgyz Association of Forest and Land Users (KAFLU)	Burhanov Aitkul Mustafaevich	Director	Male	Baitik Batyr Street, 36 +996(312)93974	Learned about the NGO's current activities and capacities to support forest users; reviewed proposed investment needs
Community Development and Investment Agency (ARIS)	Various staff in Bishkek and field offices	Various positions	Mixed	MAFIM, floor 5	Received an update about the agency's current and capacities; ARIS organized community consultations; ARIS provided inputs to project design
Russian Kyrgyz Development Fund (RKDF)	Asrandiev Erkin Shamshudinovich	Chairman of the Executive Board	Male	Erkindik blvd. 21, Orion business center, floor 2-3 +996(312)303750	Discussed co-financing of business proposals under Component 3 of RPLP

Department of chemicalization and plant protection under the State Agency for Environmental Protection and Forestry (SAEPF)	Derbyshaliev Zhanybek Seyitmamytovich	Director	Male	Bokonbaeva Street, 241 +996(551)102525	Learned about the department's functions, activities and capacities; discussed capacity and investment needs of the department
UNDP	Ibragim Khashtyrov	Agro-business development Expert United Nations Development Program in the Kyrgyz Republic	Male	Turusbekov Street 109/1, 5th floor +996(774)258111	Learned about UNDP's current ongoing projects, in particular on green value chains; discussed potential synergies and sharing information
	Urmat Takirov	Project coordinator	Male		
Committee On Agrarian Policy, Water Resources, Ecology And Regional Development	Nazarov Aytmamat Koshoevich	Chairman of the Committee	Male	Chui Avenue, 205 +996(312)638655	Discussed/presented RPLP project concept
JIA (Young Entrepreneur Business Association)	Farkhad Pakyrov	Executive Director	Male	Business center "Victory", 6th floor	Learned about the association's services on youth entrepreneurship
Department of Pastures, Livestock and Fisheries under MAFIN	Myrzakmatov Urmatbek Akmyrzaevich	Director	Male	MAFIM, floor 6 +996(772)252518	Received update on the department's activities on pasture governance; discussed further capacity and investment needs of the department
Aga Khan Development Organization in the Kyrgyz Republic	Jamil Uddin	Director Programs	Male	Turusbekov Street, 124/1 +996(312)621751	Discussed opportunities of implementing project activities and potential co-financing
Kyrgyz Scientific-Research Institute of Livestock and Pasture (KSRILP)	Turdubaev Taalaibek Zheenbekovich	Director	Male	Institutskaya Street, 1 +996(555)262010, +996(555)452609	Presented research work undertaken under LMPD I and II; discussed investment needs to improve capacity to produce quality seeds, conduct research and research aquaculture
	Kilyazova Natalya Vasilyevna	Deputy Director	Female		

Department of Plant Quarantine under the MAFIM	Isaev Amangeldi Saparbekovich	Director	Male	Razzakova Street, 43 +996(312)620274	Learned about the department's functions, activities and capacities to fight plant diseases; discussed capacity and investment needs of the department
	Zhumanaliev Bolot Asylbekovich		Male		
Agency for Hydrometeorology under the Ministry of Emergency Situations of the Kyrgyz Republic	Asankozhoyev Ryskeldi Galievich	Director Deputy	Male	Kerimbekova Street, 13/1	Discussed the progress of developing the early-warning-system financed under the IFAD-funded LMPD II project
	Makhbuba Kasymova	Head of weather forecasting	Female		
The World Bank	Koshmatov Taalaibek		Male	+996(312)625262	Identified synergies to WB-funded projects, especially the project "Integrated Forest Ecosystem Management (IFEM)"
Ministry of Finance of Kyrgyzstan	Bakyt Sydykov	Head of the Department of Programme of State Investments	Male	Erkindik blvd. 58	Discussed/presented project concept and financial terms
Reina Kench	Aksar Zhumabekov	Director	Male		Learned about the organization's current capacities and activities
Kyrgyz Scientific-Research Veterinary Institute (KSRVI)	Akmatova Elmira	Director	Female	Mederova Street, 68 +996(550)256715	Discussed capacity and investment needs of the department under RPLP component 2
Kyrgyz National Agrarian University (KNAU)	Nurgaziev Rysbek Zaryldykovich	Director	Male	Mederov Street, 68 +996(770)870117	Reviewed updates on current activities and discussed investment needs
Ministry of Finance of Kyrgyzstan	Baigonchokov Mirlan Konushbekovich	Deputy Minister	Male	Erkindik blvd. 58	Discussing/presenting project concept and financial terms
Ministry of Agriculture, Food Industry and Melioration (MAFIM)	Murashev Nurbek Murpazıljanovich	Minister	Male	MAFIM, floor 2 +996(312)623633	Discussed/presented project concept

Center for registration and certification of veterinary drugs, feed and feed additives under MAFIN	Zhumataev Cholponbek Bulanovich	Director	Male	MAFIM, floor 7	Discussed capacity and investment needs of the department under RPLP component 2
Roza Otunbaeva's Fund	Genderbaeva Dokturgul	Coordinator	Female		Learned about the organization's work with pasture kindergartens
Republican Center for Veterinary Diagnostics and Expertise	Kasymbekov Zholdoshbek	Director	Male	Ryskulov Street, 33	Discussed capacity and investment needs of the department under RPLP component 2
IFC (International Finance Corporation)	Emil Abdykalykov	Master of the IFC Dairy Development Project	Male	Erkindik blvd. 21, Orion business center, floor 4	Discussed potential synergies with IFC projects
Ministry of Economy of Kyrgyzstan	Alybaev Avtandil Sheyshenbekovich	Deputy Minister	Male	Chui avenue, 106 +996(312)620541	Discussed/presented RPLP project concept
Congress of Women of Kyrgyzstan	Akbagysheva Zamira Akbagyshevna	President of the Congress of Women of Kyrgyzstan	Female	Kiev Street, 107	Learned about the organization's projects with rural women
JICA	Mr. Itsuo Shimohira	Chief Advisor of the project	Male	Razzakova Street, 15 +996(550)104339	Learned about JICA's activities in the country; visited the project "One Village One Product program"
	Sanjar Sultankulov	Local coordinator of the MOMP JICA project	Male		
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH	Edith Koshkin	Country Coordinator for the GIZ Regional Program	Female	MAFIM, floor 6 +996(772)535386	Learned about GIZ's vast experience on pasture management and policy work
CAMP Alatoo	Azamat Isakov	Director	Male	Pereulok Ufimskiy, Bishkek, Kyrgyzstan +996553110063	Learned about the NGO's work on pasture management, capacity building and policy engagement

Rural Women Economic Empowerment Kyrgyzstan (JP RWEE) (IFAD-funded project)	Asel Kuttubaeva	Former national project coordinator for KGZ	Female	kuttubaeva@gmail.com	Learned about the benefits and possibilities of applying the Gender Action Learning System (GALS) in the Kyrgyz context
	Jipara Turmamatova	Former global project coordinator	Female	Jipara@gmail.com	
Food and Agriculture Organization (FAO)	Cholpon Alibakieva	Project coordinator	Female		Identified synergies especially on FAO's GCF proposal "Carbon Sequestration through Climate Investment in Forests and Rangelands in Kyrgyz Republic (CS-FOR)" to complement each agencies efforts
	Dinara Rakhmanova	Assistant Representative	Female		
Mirlan Parhanov	State Agency of Youth Affairs, Physical Culture and Sport	Deputy Director of Youth Policy	Male		Learned about the agencies mandate and activities
Svetlana Balalaeva	Aidemi – Women's Creative Studios' Association	Executive Director	Female		Learned about the associations activities

ANNEX 3: LIST OF PASTURE USER UNIONS VISITED

Pasture User Union	Region	Date visited	Focus groups conducted
Shark aiyl aimak, Kara-Suu raion	Osh	28/03/2019	No
Mady aiyl aimak, Kara-Suu raion	Osh	28/03/2019	No
Zhoosh aiyl aimak, Kara-Suu raion	Osh	28/03/2019	No
Kulatov aiyl aimak, Nookat raion	Osh	29/03/2019	No
Kok-Zhar aiyl aimak, Nookat raion	Osh	29/03/2019	No
Kara-Tash aiyl aimak, Nookat raion	Osh	29/03/2019	No
T. Zulpuev aiyl aimak, Nookat raion	Osh	29/03/2019	No
Kurshab aiyl aimak, Uzgen raion	Osh	30/03/2019	No
Mangyt aiyl aimak, Aravan raion	Osh	28/03/2019	No
Chek-Abad aiyl aimak, Aravan raion	Osh	28/03/2019	No
Allya Anarov aiyl aimak, Aravan raion	Osh	28/03/2019	No
Zhosholu aiyl aimak, Alay raion	Osh	29/03/2019	No
Sogondu, Lenin aiyl aimak, Alay raion	Osh	29/03/2019	No
Gulcho aiyl aimak, Alay raion	Osh	29/03/2019	No
Zhany-Aryk aiyl aimak, Kara-Suu raion	Osh	30/03/2019	No
Sadyr-Ake PUUs (Semenov, Temirov), Issyk-Kul raion	Issyk Kul	04/04/2019	No
Orgochor aiyl aimak, Zheti-Oguz raion	Issyk Kul	04/04/2019	No
Tepke aiyl aimak, Ak-Suu raion	Issyk Kul	05/04/2019	No
Kerege-Tash aiyl aimak, Ak-Suu raion	Issyk Kul	05/04/2019	Yes (women and youth)
Ak-Bulun aiyl aimak, Ak-Suu raion	Issyk Kul	05/04/2019	Yes (women)
Ak-Dobo aiyl aimak, Zheti-Oguz raion	Issyk Kul	06/04/2019	Yes (women)
Mambetov aiyl aimak, Ton raion	Issyk Kul	06/04/2019	Yes (women)
Chelpek aiyl aimak, Ak-Suu raion	Issyk Kul	05/04/2019	No
Teploklyuchenka aiyl aimak, Ak-Suu raion	Issyk Kul	05/04/2019	No
Kyzyl-Suu aiyl aimak, Zheti-Oguz raion	Issyk Kul	05/04/2019	No
Lipenka aiyl aimak, Zheti-Oguz raion	Issyk Kul	05/04/2019	No
Kun-Chygysh aiyl aimak, Ton raion	Issyk Kul	06/04/2019	No
Kok-Moinok aiyl aimak, Ton raion	Issyk Kul	06/04/2019	No
Yrsky aiyl aimak, Suzak raion	Jalal-Abad	09/04/2019	Yes (women and youth)
Bagyshsky aiyl aimak, Suzak raion	Jalal-Abad	09/04/2019	Yes (women and youth)
Masynsky aiyl aimak, Nooken raion	Jalal-Abad	10/04/2019	Yes (women and youth)
Burgondinsky aiyl aimak, Nooken raion	Jalal-Abad	10/04/2019	Yes (women and youth)

Bazaar Korgon aiyl aimak, Bazaar Korgon raion	Jalal-Abad	11/04/2019	Yes (women and youth)
Beshik Zhonsky aiyl aimak, Bazaar Korgon raion	Jalal-Abad	11/04/2019	Yes (women and youth)