

Working Paper: Evidence-Based Strengthening of the NRM Governance
Sector Assessment and Recommendations for the CS-FOR Project

Prepared by Asyl Undeland and Altynai Achilova



FEBRUARY 2018

Abbreviations and acronyms

Aiyl Aimak (AA)	rural municipality area, an administrative and territorial unit of the fourth governance levels
Aiyl Kenesh (AK)	local council of rural municipality (AA)
Aiyl Okmotu (AO)	local government of Aiyl Aimak
Asl	Above sea level
ARIS	Community Development and Investment Agency
CBFM	Community Based Forest Management
CC	Climate Change
CCCC	Climate Change Coordination Commission
CCG	Community Consultative Group
CFC	Climate Financing Center
CFCM	Climate Finance Coordination Mechanism
CFM	Collaborative Forest Management
CLMG	Community Landscape Management Group
CS-FOR	Carbon Sequestration through Climate Investment in Forests and Rangelands
EEU	Eurasian Economic Union
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
INEMCRP	Integrated Natural Resource Management and Community Resilience Plan
IFRIS	Integrated Forest and Rangeland Management System
GAO	Gross Agricultural Output
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIZ	The Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
GNI	Gross National Income
JC	Jayit (Pasture in Kyrgyz) Committee
JICA	Japan International Cooperation Agency
JFM	Joint Forest Management
INRMCRP	Integrated Natural Resources Management and Climate Resilience Plan
KGS	Kyrgyz Som (national currency)
<i>Leskhoz</i>	State forestry enterprise
M&E	Monitoring and Evaluation
MAFIM	Ministry of Agriculture, Food Industry and Melioration
MES	Ministry of Emergency Situations
MoE	Ministry of Economy
NSC	National Statistics Committee
NSSD	National Strategy for Sustainable Development
NTFP	Non timber forest products
OECD	Organisation for Economic Cooperation and Development (OECD)
PLFD	Pasture, Livestock and Fishery Department at the MAFIM
PMP	Pasture Management Plan
PUP	Pasture Use Plan
PPCR	Pilot Program for Climate Resilience
PUU	Pasture Users' Union
SAEPF	State Agency for Environment Protection and Forestry
SALSGIR	State Agency for Local Self Government and Interethnic Relations
SFF	State Forestry Fund
SFM	Sustainable Forest Management
SLF	State Land Fund
SPCR	Strategic Programme for Climate Resilience
UNFCCC	United Nations Framework Convention on Climate Change
UN	United Nations
UNDAF	United Nations Development Assistance Framework
WB	World Bank

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Currency Equivalent

Exchange Rate Effective November 17, 2017

Currency Unit = KGS, Kyrgyz Som

US\$ 1.00 = KGS 69.7

COUNTRY CONTEXT

1. Kyrgyz Republic is a mountainous country, with an economy defined largely by its history, altitude, terrain and location. Landlocked in the heart of Central Asia, Kyrgyzstan neighbors China on the east and southeast, Kazakhstan on the north, Uzbekistan on the west, and Tajikistan on the south. It was a part of the Soviet Union until 1991 and maintains close ties with Russia and other former Soviet countries. Kyrgyzstan joined the Eurasian Economic Union in August 2015; Kazakhstan and Russia are its major markets for agricultural products and destination for labour migrants. Kyrgyzstan was classified as a lower-middle-income country by the World Bank in 2016, with a GNI per capita of US\$1100. One-third or 30.4 percent of its GDP comes from the remittances of almost 1 million people working abroad, mostly in Russia and Kazakhstan¹.

2. The poverty level in Kyrgyzstan is high, with 32.1 percent of the population living below minimum subsistence levels in 2015 and 25.4 percent in 2016. Another 50 percent of the population is vulnerable to poverty, living below US\$5/day in 2015. About three-quarters of poor people live in rural settlements, with poverty the highest in remote mountainous areas. Almost all households in remote mountainous areas are poor with average per-person monthly income of US\$82 in 2015, which was equal to the minimum level of subsistence established by the Government, and 1.3 times lower than the average income in the valleys (NSC data). There were 49,000 people (0.8 percent) living in extreme poverty in 2016 and 85.4 percent of them were rural residents. The poverty level varies by regions, with Naryn the poorest in 2016, with a poverty level of 37.8 percent.²

3. Kyrgyzstan is spread nearly/almost 200 thousand square kilometers along the spectacular Tian Shan and Pamir-Alai mountain ranges capped with snow and glaciers. Nearly 90 percent of its territory is at an altitude higher than 1,500 meters above sea level (asl), and almost a half of it is not habitable and accessible. Mountainous ridges make up one-fourth of the country's area, with watersheds stretching from 5,000 - 7,000 meter peaks down to the fertile lowland valleys. There are more than 2,000 lakes and 30,000 rivers and streams in the country. Kyrgyzstan's population of about six million people live mostly on 19 percent of the habitable land area in the watersheds and in the four major valleys. Mountainous rangelands and forests make up 49 percent of the total land area, while arable land constitutes only 7 percent.³ Almost all crops (90 percent) are cultivated on 1.28 million ha of this arable land. The geography and conditions of the terrain make agriculture extremely vulnerable to weather and climate variations.

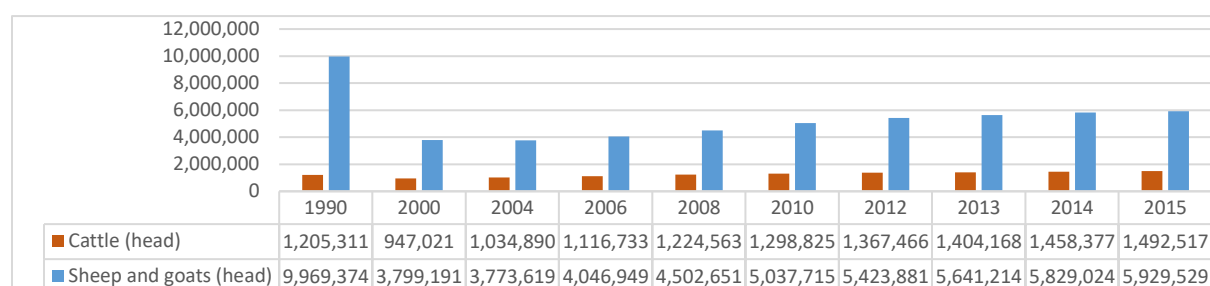
4. Agriculture is the main source of livelihood in rural areas with very limited non-farm opportunities. At the same time agricultural productivity is low: two-thirds of the population is employed in the sector but the share of agriculture in nominal GDP accounted for only 13.2 percent in 2016. About half of agricultural output is accounted by livestock production, a role increasing every year as reflected in the growing number of animals. The number of cattle and sheep has increased by 12 percent just within the last four years (Figure 1).

¹ Data provided by the State Agency on Migration under the Government of Kyrgyz Republic
http://ssm.gov.kg/?page_id=557

² <http://stat.kg/media/publicationarchive/01b28ef9-9e8c-4d84-9fae-4b1b58b1aa5a.pdf>

³ Data of National Statistical Committee of KR, 2017.

Figure 1. Livestock number in Kyrgyzstan 1990-2015



Source: National Statistical Committee of KR, 2017

5. There is a very limited number of large commercial livestock farms in the country; households and smallholder farmers produce 98.5% of the country's Gross Agricultural Output (GAO) and almost 90 percent of total livestock output (2015). Livestock rearing is a long-standing tradition of Kyrgyz people. Before being fully settled by the Soviets in the mid-20th century, Kyrgyz mountain tribes enjoyed a pastoral lifestyle based on transhumant grazing. Now almost all rural households own some livestock, which serves not only as a source of income and food, but also as a safety net and coping mechanism, in cases of financial shocks and needs. Livestock is especially important in remote mountainous areas, where cropping is limited due to a shortage of arable land, almost non-existent irrigation, distance to big cities and markets, and climatic conditions, such as short vegetation periods, frosts and droughts.

6. Livestock productivity is low and large seasonal variations in animal body weights indicate that animal feeding is geared towards animal survival rather than commercial production. Farmers produce a limited amount of fodder and feed grain mostly due to the heavy reliance on natural pastures. Almost all livestock is grazed at pastures year-round. Daily grazing occurs in pastures near villages during the fall-winter-early spring months. During the spring-summer months, grazing follows the transhumance migration routes in the more remote alpine pastures, sometimes as far as 100 km from the village. Traditional knowledge of sustainable transhumant grazing was lost during the Soviet times, when households were prohibited to own more than three sheep for personal purposes. After gaining independence and with more people engaged in livestock breeding, traditional livestock practices have been slowly recovering. More farmers today migrate along the rangelands not only to ensure adequate feeding for their livestock, but to preserve and allow the vegetation to regenerate. Sustainable landscape-based grazing has been a core of Kyrgyz traditional pastoral practices, which have been incorporated in recent pasture management reforms.

MANAGEMENT OF FOREST AND RANGELAND RESOURCES

Rangeland and forest ecosystem legislation framework

7. There are more than 20 ecosystems⁴ in Kyrgyzstan, ranging from glaciers and snow fields to deserts, with rangelands and forests covering almost half of the country's territory. Forest cover is relatively small, consisting of 5.6 percent of the total land area.

⁴ Biodiversity Conservation Priorities of the Kyrgyz Republic till 2024. Full text is available at:

<http://www.ecology.gov.kg/page/view/id/25> (official website of the State Agency for Environmental Protection of KR)

8. Forests in Kyrgyzstan play important environmental and protective role in natural disaster prevention, including reducing landslides, mudflows, land-slips, and snow avalanches. Their role in regulating microclimate, retention of water and moisture, as well as carbon is not researched nor recognized in the country. They are important for the livelihoods of the more than 2 million people in 280 rural municipalities. The forests are used for harvesting fuel wood and timber, collecting Non-Timber Forest Products (NTFP), and grazing livestock. They are especially important for livelihoods of the remote, mountainous communities, which lack employment opportunities, with lack of infrastructure and remoteness of markets.

9. Forest deterioration contributes to root factors of natural disasters in Kyrgyzstan. The Ministry of Emergency Situations of the Kyrgyz Republic reports that the number of floods, mudflows, landslides and avalanches has significantly increased during the last decade. The number of emergency situations in 2016 was higher than average, and natural disasters caused a total of 1.6 billion KGS of economic damage.⁵ Osh and Jalalabad regions are most prone to natural disasters, with mudslides and landslides occurring along Kok-Art, Changet, It-Agar, Padysha-Ata, and Yassy watersheds. The biggest number of landslides and mudflows in 2016 was registered in Osh (152 landslides, 425 mudflows) and Jalalabad oblasts (114 landslides, 261 mudflows), while in other parts of the country the number of landslides were no more than 25 and the number of mudflows no more than 84.⁶ One of the key reasons for these disasters besides geology of rocks, location of the settlements, is the degradation of vegetation along mountain slopes, caused by heavy anthropogenic pressure from livestock overgrazing, erosion of river banks, and unsustainable harvesting of timber and fuelwood.

10. Forests, interspersed in the rangeland landscapes, have been seen by Kyrgyz people as a part of the transhumance landscape. That perspective changed during the Soviet era, when rangelands and forests were viewed and managed separately depending on the use. Rangelands with large meadows surrounded by the mountain ridges comprise an area of 9 million ha and were seen as a productive feeding base for the livestock, and thus classified in the state land cadaster as pastures within the agricultural land category. Agricultural land makes up about 10.6 million ha⁷ in the State Land Fund (SLF). All forests which grow on the SLF (277,000 ha)⁸ are considered municipal forests and are to be managed either by local self-governing bodies or rural communities (Government Resolution #407, July 2011). However, since these forests have not been actually assessed and mapped, local government bodies have not been able to manage them and protect from the grazing and harvesting pressure from local communities.

11. Forests during the early Soviet period had a productive role, with timber cut and used for construction of emerging cities and settlements. Kyrgyzstan lost about half of its forest cover by 1966. The deforestation led to massive erosion, with landslides and mudslides threatening villages. Because of that threat, the policy towards forests was changed, and forests were recognized as having a mostly protective role (1960, Government Resolution #315). Rangelands that have been part of the forestry enterprises, protected areas and national parks are managed under the State Forestry Fund (SFF). The area of the SFF covered by forest (both natural and cultivated) is 1,164,065 ha, or 26.2 percent, while the remaining 74.8 percent consists of rangelands used for grazing and making hay, arable land, land under perennials, land under settlements, and other types of land. In reality, forest lands are sub-alpine and alpine meadows and steppe grasslands with patches of open forest. They are located mostly at the average altitude between winter and summer pastures, and compose the natural rangeland-forest ecosystem.

⁵ Ministry of Emergency of the Kyrgyz Republic data

⁶Monitoring and forecasting of disasters and hazards on the territory of Kyrgyzstan. Ministry of Emergency of the Kyrgyz Republic, 2017

⁷ <http://stat.kg/media/publicationarchive/194156d4-c806-4f02-9423-61ba3e85cce3.pdf> page 48

⁸ National Forest Inventory of the Kyrgyz Republic, 2008-2010

12. The Constitution of the Kyrgyz Republic declares state ownership of the natural pastures and forests. These lands make up part of the State Forestry Fund and are managed by environmental and forestry legislation. Forest ecosystems of the SFF and pasture lands of the SLF are governed by two different sets of legislation. The Forest Code and a range of legal and normative acts and regulations govern tenure regime and arrangements on SFF lands. The Land Code, Pasture Law and other land-related set of legislation regulate the use and management of SLF pastures (see Annex 2).

13. The land reforms, which started in Kyrgyzstan with the collapse of the Soviet Union, focused on privatization of arable land. Collective and state farms were restructured first and then fully dismantled by 1997. Pasture land remained under the overall responsibility of the Ministry of Agriculture but there were no bodies managing them on the ground. That led to the use of pastures in an “open access” manner, resulting in devastating degradation of fragile grassland resources, especially near villages.

14. Government Resolution #360 adopted in 2002 intended to bring SLF pastures back to regulated management by the state regional, district administrations and local governments. These respective bodies could lease out pasture plots to users through competitive auctions. However, that management system did not function well because regional and district administrations were far from users and the resources themselves. In practice, large pasture plots were leased by better off or even absentee farmers who subleased them to communities through community shepherds. The Pasture Law adopted in 2009 fully changed the tenure arrangements of pasture resources. The Law was based on traditional transhumant grazing practices and decentralized management of pastures to local governments, which in turn delegated pasture management to Pasture Users Unions (PUUs) with all residents of the AA as members. By 2011, PUUs were formed in almost all 475 AAs and elected executive bodies as Pasture or *Jaiyt* Committees (JCs) which by Law include representatives of the users, *aiyl kenesh*, head of the *aiyl okmotu* and other stakeholders. In some areas youth committees, village health committees, and other community organizations are also members of the JCs. In areas where communities use pastures of both SLF and SFF, management of the *leskhoz* is also included in the JC. The changes were made to the Land Code to adjust provisions related to pasture management by the local government bodies, and to the Tax Code and Budget Code to reflect arrangements for payment of land tax and pasture use fees. A pasture use right is granted for one year based on application of the user to the JC.

15. Forestry legislation is mostly inherited from the Soviet period and underwent limited changes. The Forest Code is a main legal framework and regulates the State Forest Fund management (adopted in July 1999). The SFF is comprised of forests and their appurtenant land as well as lands not covered by forest, which can be used for afforestation. Forest land units are given for perpetual use (without time limits) to the *leskhoz*es -- territorial state forest management bodies (FC Art. 13). They also can be leased out for perpetual use to state and municipal organizations according to the Land Code (LC Art. 34). All other organizations, companies, and individuals can access forest only for term-based use. The Forest Code identifies the following types of forest uses:

- Tilling, hay making, grazing, beekeeping, collecting food and medicinal plants;
- Harvesting secondary forest resources (bark, stubs, etc.);
- Scientific, recreational, and hunting purposes, and for tourism;
- Timber harvesting.

16. The forest resources can be accessed through two major types of tenure: i) lease of the SFF land for productive purposes, including for grazing livestock; and ii) permit to use or harvest resources. Leases can be seasonal or long term with a limit of up to 49 years. The permits can be for felling and forest resources use and only for a season within each year. Leases and permits are issued by the *leskhoz* based on application of the users.

17. A new tenure group-based arrangement for forest management known as Collaborative Forest Management (CFM) was introduced in 2001 and intended to empower a group of households or a community to manage large patches of forest land to better preserve the forests while improving livelihoods. Under this tenure arrangement, the *leskhoz* defines forest area (usually up to 5 ha) and allocates it for use under the CFM initially for 5 years, and then extends to 49 years. The payment for

use of forest resources is provided in labour in terms of forest activities, such as cuttings, clearings, and other maintenance work undertaken by the lessee. The arrangement is practiced mostly in the nut-fruit forests in the South of the country, where competition for forest plots is high and economic incentives of users to undertake forest maintenance activities are sufficient. The arrangement has had mixed results. While it has advanced local community access to forest resources, it has not been seen as improving forest conditions and resource regeneration. In many cases it has led to the fragmentation of forest ecosystems into plots managed by individual households. Some users with 50-year leases decided to grow agricultural crops on their plots. The arrangement favoured households with sufficient human and technical resources able to maintain and protect the forest as per the requirements, while poorer and female-headed households have been largely excluded.

18. There are no legal acts or provisions, which would bring these two sets of legislation into synergy to protect fragile resources and to harmonize management and tenure arrangements. The only attempt to build cooperation was a Memorandum of Cooperation between the SAEPF and the Ministry of Agriculture, Food Industry and Melioration (MAFIM) in April 2013 and Memorandum between MAIFPM and SAEPF signed in April 2016, which aimed to tackle the problem of pasture ecosystems management in an integrated manner. The latest memorandum of 2016 has set a condition for Pasture Committees (PCs) to rent pasture lands from the *leskhoz* for one to five years, described responsibilities of the PCs to pay pasture use fees, to undertake monitoring of use and ensure adherence to the environmental safety requirements.

19. The reforms conducted in pasture management of the SLF did not translate into any changes for the management of forests and their ecosystems. Regulation of management and use of forest and rangeland components of one ecosystem in two different sets of legislation has led to contradictions, created confusion on the ground, and most importantly translated into inefficient management, fragmentation and resource degradation. Several elements of good management of the SLF pastures could be adapted for the tenure of the forest lands to facilitate an integrated ecosystem-based approach (Table 1).

Table 1: Principles of good management of the SLF/SFF forest and pastures and CS-FOR approach

Principles of good management	SLF Pastures	SFF Pastures	CS-FOR approach
Transparency	<ul style="list-style-type: none"> - Allocation of rights is transparent and can be scrutinized by the communities and local governments and can be checked against the Pasture Management Plan (PMP); - Information is presented to the village assembly and plans are approved by the local government; - Fees are approved by the local councils and the Jaiyt Committee (JC) reports to the village assembly and local government on 	<ul style="list-style-type: none"> - Allocation process of leases and permits is not transparent and information on forest management plans and linked opportunities is not accessible; - Fees and calculations of labour cost for in-kind payments are established at the national level (SAEPF); - All fees are collected and stay with the <i>leskhoz</i> and SAEPF; - No public information on collection of fees and other income of <i>leskhoz</i> are available 	<ul style="list-style-type: none"> - Communities will be aware of rangeland-forest ecosystem resources and will participate in the development of the Integrated Natural Resource Management and Community Resilience Plan (INRMCRP) - The INRMCRP will be available to communities and public (displayed in the local government bodies, online)

	revenue (revenue stream is through the local government budget with 30 percent of pasture fees remaining in the local government fund)		
Participation	<ul style="list-style-type: none"> - Local government, local council and informal leaders together with the users form the JC make decisions on allocation of rights; - JC members participate in the pasture assessment and elaboration of the PMP - Needs for pasture improvement are identified through group discussions with poor, women and youth, as well as commercial users 	<ul style="list-style-type: none"> - The SAEPF conducts an inventory of forest resources and prescribes targets - All decisions on allocation of lease and use rights are made by the <i>leskhoz</i> management 	<ul style="list-style-type: none"> - Community Consultative Groups (CCGs) will be established at the local level (level of watershed or other appropriate to area of forestry enterprise) to participate in development of the INRMCRP
Accountability	<ul style="list-style-type: none"> - The JC is accountable to the PUU and to the local government, but not to the central regulatory and monitoring body (MAFIM) - Basis for decisions is clear - Users can redress their grievances to the local government and to the Revision Committee of the PUU 	<ul style="list-style-type: none"> - <i>Leskhoz</i> is accountable only to the SAEPF, no downward accountability - <i>Leskhoz</i> monitors use of resources - <i>Leskhoz</i> reports to the SAEPF on use and use fees collected - Decisions are not predictable - There are no effective avenues for redress and grievances 	<ul style="list-style-type: none"> - Accountability mechanisms will be developed for CCG report to local communities on the planning and implementation of plans - Accessible and affordable redress mechanisms will be elaborated and installed
Fairness/equity	<ul style="list-style-type: none"> - Allocation of annual use rights is conducted in a participatory manner and based on principles of equity due to the fact that all users are PUU members and that the PC reports to the PUU 	<ul style="list-style-type: none"> - There are no clear arrangements and processes for allocating use rights and leases leading to frequent conflicts between users, and between users and <i>leskhoz</i>es authorities - Procedures for the CFM-based lease are based on competition but its requirements are not fair and inclusive 	<ul style="list-style-type: none"> - The CS-FOR will develop recommendations for tenure arrangements for improved access and sustainable use based on climate resilience assessment and planning
Coordination	<ul style="list-style-type: none"> - Coordination with the local government and <i>leskhoz</i>; - Lack of coordination with other relevant institutions 	<ul style="list-style-type: none"> - No coordination with local government - Lack of coordination with other relevant institutions 	<ul style="list-style-type: none"> - Coordination mechanisms will be established at the local and national level to ensure synergy of all related institutions under the Climate Change Coordination Committee

Capacity

- Technical capacities of the communities to participate in pasture management planning is low
- Capacity of the JCs to engage other stakeholders is low
- Lack of financial and human resources to ensure participation
- Technical capacities of the communities to participate in forest resources management is low
- Capacity of the *leskhoz*es to engage other stakeholders is low
- Lack of financial and human resources to ensure participation
- The CS-FOR will work with task forces to develop tools and methodologies and train stakeholders on community engagement, and on technical issues of planning and management of pasture-forest resources
- Local governments will be trained to mobilize communities for the development of the INRMCRP and will commit budget allocation for community participation

20. To transform management of pasture and forest resources at the national and local levels to an ecosystem-based sustainable NRM, it is necessary to integrate and harmonize pasture and forest management legislation based on principles of transparency, and local community participation in resource management. Local governments, forestry enterprises and users' organizations need to work in partnership to enhance the resilience of rangeland-forest ecosystems and local community resilience to climate change. The Project will provide technical and legal support for developing tenure arrangements for management of pasture-forest ecosystem resources and knowledge transfer to local stakeholders. The legal arrangements for access and use of pastures will be streamlined. The major directions for harmonization of rangeland-forest ecosystem legal framework will be regarding tenure regime, the process of accessing pastures, the possibility of granting several and various rights to the landscape, payment principle, and use of payment (Table 2).

Table 2. Key differences in the SLF and SFF pasture tenure arrangements

	Pastures of the SLF	Pastures of the SFF
Tenure regime	Lease and sublease of pasture land is prohibited. Annual use right for grazing, for other non-grazing purposes. The right is granted annually and for a specific use, not for a land area, which allows different users to access and use resources and avoids ecosystem fragmentation. Pasture Law also ensures that if resources are not used, the right to use can be withdrawn (to avoid elite capture)	Land plot can be leased for a period of up to 49 years. Land plot can be used by lessee for different purposes in addition to grazing (eg. cropping, collection of fuelwood). Number of animals is not limited and can be larger than sustainable carrying capacity of the plot, which can lead to ecosystem fragmentation and the deterioration of natural resources
Allocation of right	Annual use is granted based on assessment of pasture conditions and the PMP	Annual use is granted based on available area since forest management plan is focused on afforestation and forest maintenance
Bundle of rights	Grazing right allows other non-grazing users to access pasture resources (eg. Beekeeping, tourism, collection of medicinal herbs)	Lease of pasture land does not allow access for other non-grazing users

Payment	Payment is based on number and type of livestock	Payment is based on area and can create incentive to overuse land plot
Use of payment	Revenue from the fees (about 70 percent of collected fees) are directed by the Pasture Law to be used for pasture improvements	Revenue from the pasture use fees go to the pool/budget of the leskhodz

21. CS-FOR will ensure that the legal framework is fully integrated with existing environmental legislation concerning protection of water, soil, and biodiversity.

Policies in forest and pasture management

22. Pasture management reforms started with a new Pasture Law adopted in January 2009. The Kyrgyz Government's vision at that time was to improve pasture management in efforts to reduce poverty and stimulate economic growth. The reforms were to be reflected in the fair allocation of pasture use rights to improve access and reduce conflicts, in arresting pasture resource degradation by enforcing pasture rotation, and in pasture management by local governments and users based on planning, and collecting pasture fees for local development and pasture maintenance. The Kyrgyz Government's National Strategy for Sustainable Development 2013-2017 saw adopting new pasture monitoring technologies as a key principle in improving pasture management to ensure economic benefits while preventing pasture degradation. The State Programme for Development of Pasture Management for 2012-2015 and a corresponding Action Plan (Government Resolution #89) were adopted by the Ministry of Agriculture, Food Industry and Melioration (MAFIM) in February 2012. The Programme has aimed to improve the wellbeing of the people, ensure food security, and preserve the environmental integrity of pasture ecosystems. Pasture monitoring also stands out as a key element for improved management. The Programme lacks a roadmap outlining how these aims are to be achieved and which institutions should be tasked with specific functions and activities to improve pasture monitoring and use regulation. The MAFIM is currently in the process of developing a new Pasture Management Strategy and Programme for 2018-2040. The MAFIM in the course of the preparation of this Project has requested FAO to provide technical support to the development of this Strategy and Action Plan. This can be a great opportunity to bridge policies on two pasture systems' management.

23. A forestry development policy has lagged behind. The National Forest Policy, adopted in 1998 (Presidential Decree #300, October 6, 1998) was based on the three pillars of "State, Man, and Forest," aiming to ensure sustainable forest management by recognizing forests as valuable ecosystems that need to be protected. The Policy of 1998 aimed to decentralize management of forest resources to grant more autonomy to the *leskhazes*, to engage communities in the management through Community Based Forest Management (CBFM) or Joint Forest Management (JFM) approaches; and to transfer specific economic functions to the private sector, such as the maintenance and improvement of forest resources. However, that policy was not implemented in full due to several key factors, including weak technical capacity in the State Agency for Environment Protection and Forestry (SAEPF), limited state funding, and low commitment of the SAEPF leadership to the decentralization of management to the level of leskhazes and transfer of functions to the private sector. The Presidential Decree #300 of 1998 stipulated that a new Concept of the Forestry Development 2040 had to be in place in 20 years, i.e. by December 2017.

24. National Forestry Program for 2005-2015 was approved in 2004, which defined major directions for activities in the sector. Its major objective is to support sustainable development of the forestry through engagement of local population and communities in joint forest management and defining a new role of the state in the sector. The major tasks as underlined in this NFP were the following: to protect forests irrespective of their ownership type; to improve monitoring of forests ecosystems and their biodiversity; to improve legislation related to forest management and use; improve joint forest management and tenure arrangements; to improve economic incentives in forest management and use; and to increase awareness of population on the situation in the forestry sector.

25. The SAEPP is currently in process of finalizing the new Forestry Concept with the support of FAO. The draft Concept is accompanied by the Action Plan for 2018-2022. The draft Concept is aimed at advancing Sustainable Forest Management (SFM) to ensure economic prosperity, social well-being, environmental safety and wellness of the nation. The six key aspects of the SFM as stated in the draft Concept are the following:

- 1) Maintenance and development of the forest ecosystems and their input into the global carbon cycle;
- 2) Maintenance of health and resilience of the forest ecosystems;
- 3) Maintenance and strengthening of forests' productive functions (timber and NTFP);
- 4) Maintenance, preservation and improvement of biodiversity of the forest ecosystems;
- 5) Maintenance and strengthening management of the protective functions of forests (soil and water);
- 6) Supporting other socio-economic functions and conditions of the forest ecosystems.

26. The major objectives of the SFM principles as reflected in the draft Concept are contained in four components: economy, social well-being, environment, and institutional framework. The Concept is still in consultations and might be revised, but the key targets established for 2040 are the following:

- I. Economy: 50 percent increase of the contribution of the forestry sector to the GDP from 0.05 percent through the introduction of forest accounts, creating favorable conditions for the economic sustainability of the forestry; promoting the private sector and development of timber and NTFP value chains; and developing recreational and other forestry ecosystem opportunities.
- II. Social well-being: reduce poverty of forest communities by 10 percent through the development of joint forest management, diversification of incomes of local communities, and introduction of integrated resources management at the community level.
- III. Environment: increase forest cover up to 6 percent of the country's total land area through technology, improving forest inventory, and better protecting forests from fire, illegal use, and pests and diseases.
- IV. Institutional framework: advance the SFM through institutional reforms and the introduction of new and innovative technologies in forest management, such as using remote sensing to assess resources.

27. The Kyrgyz Government is in the process of finalizing the country's National Strategy for Sustainable Development 2040, which is expected to be adopted in 2018. It is accompanied by the "Forty Steps Programme," aiming among other tasks to preserve forests and biodiverse ecosystems through social forestry and joint forest management, and by regenerating natural resources. Step 39th – Environmental Sustainability -- aims at establishing an adequate legal framework and providing state support for environmental protection, and Step 40th -- Mountainous Forests -- emphasizes the fragility of mountainous forest ecosystems and the need for protection and afforestation.

28. The CS-FOR Project's objectives are fully in line with the Kyrgyz Government's draft Forestry Development Concept and Pasture Development Strategy, as well as overall NSSD 2040 aimed at preserving and improving pasture-forest ecosystems by decentralizing management to local forestry enterprises and local government, and enhancing co-management of resources with communities. Innovative technologies in resource assessment, inventory and monitoring are seen as critical tools by the Kyrgyz Government. The CS-FOR would play a crucial role in supporting the Kyrgyz Government in developing an integrated rangeland-forest management strategy and action plan, and supporting the strategy with technical assistance, evidence generation to improve regulations and the legal framework, and transfer of knowledge.

29. The Project will facilitate the integration of climate resilience issues in the pasture-forest policy and legal framework, and implement the adaptation measures identified by the Government in 2013 and reflected in the "Priority Directions for Adaptation to Climate Change until 2017". The improvement of the policy and legal framework for adapting to climate change and strengthening institutional cooperation and coordination are key priorities of the Government. The CS-FOR will support these priorities and contribute to integrating the rangeland-forest ecosystem management strategy for climate adaptation. The Government established a Coordination Commission on Climate Change (CCCC) in

November 2012 chaired by the Vice Prime Minister, who also is supervising environmental issues. The key objective of the CCCC is to lead and coordinate activities of various agencies and ministries in implementation of the country's commitments under the United Nations Framework Convention on Climate Change and the Kyoto protocol.

Pasture and forest management institutions

30. Kyrgyzstan has undergone profound changes since gaining independence in 1991. However, it still struggles with inefficiencies inherited from the Soviet centrally-planned economy and institutional framework. Decisions made at the national level do not respond to needs and capacities on the ground and thus either are not implemented or are implemented inefficiently. The institutional setup for rangeland and forest resource management is also fragmented with various ministries and agencies in charge of various resources (Figure 2). During the Soviet period, SLF pastures were managed by the Ministry of Agriculture at the national level, and by collective and state farms on the ground. SFF pastures, together with the natural forests, were managed by the Forestry Committee and SAEPF at the national level, and by the *leskhazes* on the ground. As mentioned above, in 2002 the management of the SLF pastures were transferred to the regional (remote pastures), district (intensive pastures located within a day route) state administrations, and winter or near village pastures to the management of the local governments -- *aiyl okmotu* (AO). The Pasture Law of 2009 transferred management of pastures of the SLF to the local governments, which could further delegate management to the Pasture Users' Unions (PUUs). So far all 471 AOs transferred pasture management to established PUUs. According to the Pasture Law, the Aiyl Okmotu Assembly is the supreme body of the PUU, and the PUU should have an executive body – Jaiyt Committee (JC), which is comprised of elected members of the PUU (usually shepherds and livestock farmers), head of local government, head of local council, and other members of formal institutions. The key principle is that members of the PUU are all residents of the community and they elect representatives to the JC.

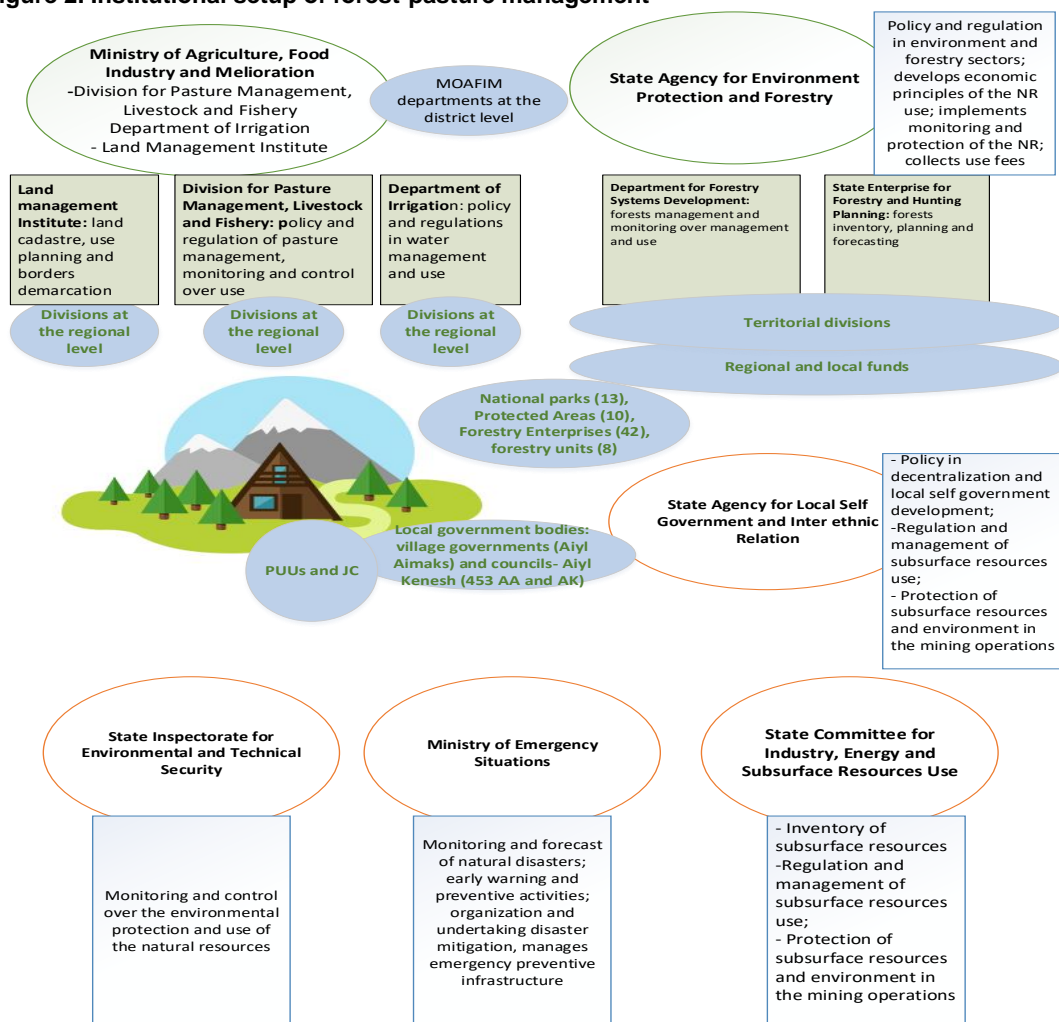
31. The JC as it is defined in the Pasture Law is responsible for the following tasks: pasture management and use planning and implementation, monitoring of pasture conditions, defining and collecting pasture fees, pasture-use-related conflict management, and managing funds collected from pasture use for pasture improvement and management. The Pasture Law was changed to prescribe that at least 30 percent of collected pasture fees should be transferred to local budgets (budget of *Aiyl Okmotu*). With the support of the World Bank (WB) and International Fund for Agricultural Development (IFAD) all 475 PUUs and JCs have been trained on pasture management principles, planning and improvement. JC reports to the *aiyl okmotu*, *aiyl kenesh* every year and to the Village Assembly. Members of the JC are re-elected every five years. In practice the turnover of the chairpersons on the JC has been very high with many leaving positions due to pressure from local governments and communities.

32. The MAFIM is an authorized state body at the central level responsible for defining policy in regulating state pasture land use (except pastures of the SFF). It 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 also oversees pasture monitoring, pasture management plans, and provides support to local governments and PUUs on pasture use (Pasture Law, article 14). In 2016, the Pasture Department within the MAFIM merged with two other departments and became the Pasture, Livestock and Fishery Department (PLFD), responsible for developing policy and legislation in pasture management and use, and providing technical and other support to local governments and PUUs. The State Land Management Institute GIPROZEM under the MAFIM is responsible for monitoring pastures and for pasture border demarcation. There is no cooperation between these departments within the one ministry and they continue to overlap and duplicate some functions.

33. The Melioration Department of MAFIM is responsible for regulating and managing the use of irrigated water. However, there is little cooperation with other departments of MAFIM and other ministries (SAEPF, MES, State Committee for Industry, Energy and Subsurface Resources) that deal

with underground water, as well as land and forests along the rivers. The State Inspectorate for Environmental and Technical Security is responsible for monitoring how natural resources are being used, which include pastures, forests and water resources. At the same time, the functions of the state monitoring over the use of these resources are not being supported by adequate harmonized legislation and normative acts and have many gaps which contribute to an inefficient management structure.

Figure 2. Institutional setup of forest-pasture management



34. Pastures of the State Forestry Fund (SFF) remained outside of these reforms and managed by the SAEPF and *leskhozes*. Use regime of these grazing areas is defined by the Forestry Code and other forest specific regulations, and is different from the current tenure regime of the municipal pastures. The major differences are that municipal pasture lands are managed by local governments with the users, who ensure a higher transparency in the allocation of use rights and funds received and are more responsiveness to the needs of local communities. Legal mechanisms aim to limit pasture degradation. The use fee and grazing area allocation is based on the number of livestock, and funds collected from the use go to the local budget for various community needs and to improve pasture infrastructure and conditions (see Table 2).

35. Forests are managed by SAEPF and its territorial divisions and forestry enterprises and units. There are 42 *leskhozes*, eight independent forestry units, one forestry and hunting enterprise, 13 state national

parks, and 1,041 forestry units. There are 1,465 people working in the state forestry system, including 913 rangers. The forestry sector underwent some tenure, management and institutional changes mostly focused at the national and regional levels, with the State Forestry Committee merging with the Ministry of Environment into the SAEPF. That led to a reduction of staff and the establishment of Territorial Departments.

36. The state institutions at the national and local levels do not have lines of coordination of their activities and often operate in contradiction of each other's policy and legal frameworks. Such fragmentation and narrow focus lead to inefficient management. Forestry reforms have not yet reached the ground level of the *leskhoz*es, while pasture management reforms in contrast were focused on the ground level and have not yet affected the national level.

37. To improve coordination and cooperation between different agencies dealing with management of pasture-forest natural resources and to enhance ecosystem-based adaptation, the CS-FOR Project would support the CCCC in activities aimed at integrating forest-pasture ecosystem resilience and climate change.

Planning and decision making

38. Main pasture users are farmers who graze their livestock on pastures, and herders who graze community and individual farmers' livestock. The JC conducts inventory of livestock in the community, undertakes pasture assessment following methodology developed by the MAFIM and, based on the results, develops the PMP and based on annual Pasture Use Plan (PUP). The PMP is developed every three years, it identifies grazing routes and provides prescriptions on the optimal number of livestock on specific grassland areas for sustainable use and preservation of fragile natural pasture resources. The livestock farmers and herders apply to the JC every year in early spring to obtain use rights which are certified in a Pasture Ticket, which specifies the number and type of livestock, the area for grazing (with a map), and the amount of payment. Both categories of users usually graze their own livestock and add livestock of smallholders from the community for a fee, which includes a pasture use fee, land tax and a payment for shepherding animals during the season. The new SLF pasture management and use system has been breaking away from the fragmentation of the landscape, aiming at seasonal and yearly pasture rotation through herd mobility. These decisions are reflected in three-year Pasture Management Plans (PMPs) and annual Pasture Use Plans (PUPs), which are consulted upon and agreed with users at the PUUs' assemblies, and approved by local government bodies (AO and AK).

39. The major principle of the new SLF pasture management system is that use is based on the availability and condition of natural vegetation resources with the aim to preserve them. Allocation of use right is based on the number of animals and given not in a form of a multi-year lease right as it was before the reform, but as an annual use right to the seasonal migration route. The reforms started at the local level through mobilizing users into PUUs and elected JCs, building capacities in understanding local resources and their condition, and reflecting this information in pasture profiles. JCs were trained to evaluate pasture conditions and, based on the livestock number in the community, to make decisions on optimal carrying capacities of the grazing areas.

40. There are other non-grazing users of the SLF pasture resources, such as beekeepers, collectors of plants, herbs, berries and mushrooms, as well as providers of tourism services (yurts for tourists' stay, trekking and hiking services). The regulations for secondary use of pasture resources define use for beekeeping for a period of less than one month; picking plants and herbs in small quantities for one's own consumption are allowed free of charge. Tourism services, as well as other uses, such as small-scale mining and mineral extraction, or installation of facilities (communication towers and equipment) are fee-based. There is a recommended by the MAFIM formula for calculating pasture use fee, but each JC has its own policy. Such arrangements have focused on productive use without consideration of potential and existing environmental and climate change impacts and their mitigation. The lack of a solid legal framework for the management of medicinal, edible, and aromatic herbs and plants has led to de facto "open access" use. The state institutions that govern the access to and use of plants and herbs

are not represented locally in areas where herb collection occurs, and therefore what little regulatory regime does exist for plant collection has proven ineffective.

41. Local governments and the territorial departments of the SAEPF are responsible for organizing and carrying out the management of game resources, as well as for coordinating the activities of hunting-related enterprises and organizations. In practice, however, this local control is ineffectual, because there are neither mechanisms for local control nor legal arrangements in place to govern the process of revenue sharing with local governments. Some 20 percent of hunting revenue is supposed to be transferred to *ayil okmotu*, but in practice it doesn't work due to lack of legal arrangements. Hunting fees on SLF pasturelands are supposed to be collected by the JCs as well, but due to a lack of adequate regulations there is a confusion on how to calculate and collect that fee. Private enterprises engaged in mining and extraction of various mineral and other resources, ski resorts and other landscape-based businesses, such as tourism and recreational hunting, are other users of rangeland resources. Such activities have sparked disagreements with the JCs over the use of the pasture lands. This is mostly due to a lack of legal framework which would harmonize tenure arrangements for sustainable use.

42. Pasture management within the State Forestry Fund is very centralized. The Regulation of Government on the State Agency for Environment and Forestry of the Government of the Kyrgyz Republic was adopted by a 2008 Resolution⁹ and the SAEPF is the main state institution responsible for the formulation, implementation, and monitoring of state policies in the area of environmental protection and natural resource management. The SAEPF is mandated to regulate the use of natural resources such as wildlife, medicinal plants, fish, and forest resources. The agency issues licenses for use of these resources. The functions of the SAEPF include developing and implementing state policy on environmental protection for the following resources and activities:

- flora;
- game hunting, including limits, quotas, and supervision of hunting activities and resources;
- fish stock and fishing, including limits and quotas;
- forestry management.

43. Implementation of forest reforms started at the national and regional level but have not reached the ground level of *leskhoz*s. With the ambitious plans elaborated at the national level, the majority of *leskhoz*s continue to operate on a very small budget, which is not sufficient to undertake planned activities effectively. The state budget covers only meager salaries and operational expenses.

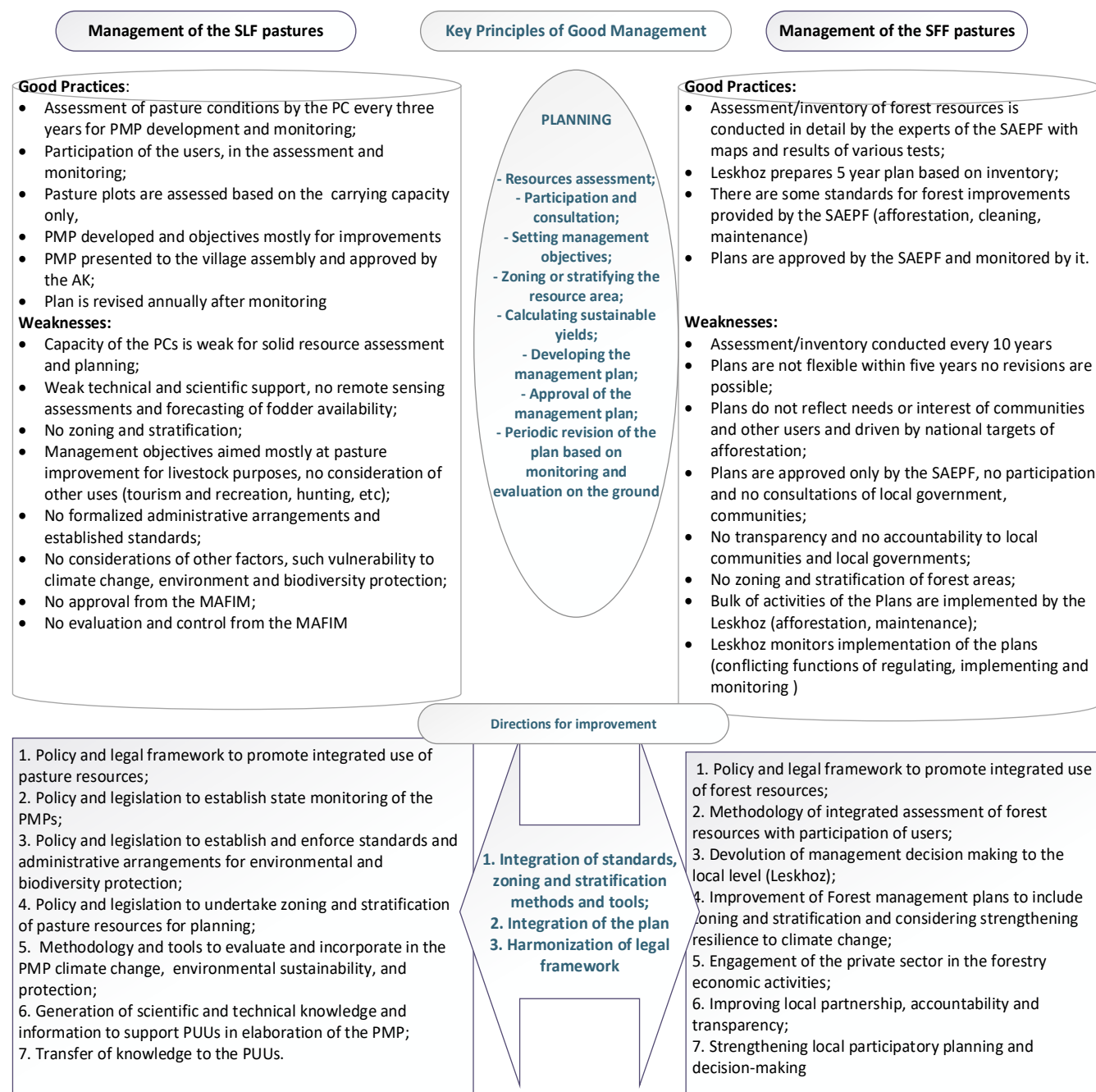
44. Planning and the decision-making process on pastures of the SFF is very different and focused on forest-related activities. The State Enterprise for Forestry and Hunting Planning under the SAEPF undertakes an inventory of forest resources every 10 years. This inventory is based on several samples of the forested area and the findings and recommendations serve as foundation for the five-year National Action Plan. The overall national target of the National Action Plans had been to increase forest cover to the level of 1930 with an annual target for afforestation of 3,000 ha. This volume was in the past soviet time, and now the plan is only 1000 ha. The SAEPF defined targets for each *leskhoz*, which also have their five-year and annual plans. Five-year plans are linked to NAPs and thus cannot be revised. Other activities and use are reflected in planned revenue to be collected by each *leskhoz* to cover cost of activities to support implementation of the NAP. Neither local governments nor communities participate in the planning. The differences in approaches to planning processes and decision making on pastures of SLF and SFF, as well as the shortcomings of each approach, are shown in Figure 3.

45. Use of various natural resources on the lands of the SFF are better regulated and there is a set of normative acts which define the terms and conditions for accessing the resources. However, the existence of different regimes for the use of the same resources in one ecosystem (SLF and SFF) is not

⁹ Resolution of the Government of the Kyrgyz Republic, April 10, 2008 No 139.

effective. Given the contradiction in existing legislation, lack of clarity for users, and the growing demand for the products produced within pasture-forest ecosystems, the importance of developing a national strategy on ecosystem-based pasture management is clear. Moreover, this strategy must be based on a unified approach for all natural resources, regardless of where the resources are located. This strategy should be geared towards delegating more rights and responsibilities to local governments and communities over the management, monitoring and improvement of natural resources.

Figure 3. Key aspects of planning and decision making on pastures of the SLF and SFF and strategic directions for improvement



Implementation, enforcement and compliance

46. Management decisions are made, implemented and enforced by the JC and funded with the pasture fees collected from the users based on the livestock type and number. All established PUUs supported by the IFAD Livestock and Market Development Projects I and II in five regions and by the WB-funded Pasture Management Improvement Project in two remaining regions have developed PMPs with a focus on the rehabilitation of pasture infrastructure, such as access roads, bridges and watering points. Users have started paying for pasture use and pay a land tax to the JCs. The use fee is established annually by the JC and approved by the local government. The fee is currently based on the priority needs of the PMP reflected in the PUU annual budget and divided by the total number of livestock units in the PUU. Thus, for example, in Ak Talaa target district, 285 users received Pasture Tickets out of more than 8,000 households in 2016 (Table 3). These households grazed herds of about 400 sheep on average on spring and summer pastures. Direct users of pastures make up about 1.3-3 percent of households in pilot communities.

Table 3. SLF Pasture Tickets and Collected Use Fees, and Collection of Grazing Fees in *ieskhoz*es in Pilot Districts in 2015-2016

District	Number of Pasture tickets in 2015	Number of Pasture tickets in 2016	Collection of Pasture Use Fee on SLF 2015 (KGS)	Collection of Pasture Use Fees on SLF 2016 (KGS)
Ak Talal	274	285	2 880 680	3 072 600
Toguz Toro	253	283	1 435 000	1 435 000
Suzak	683	740	3 301 384	3 398 005
Uzgen	529	605	3 310 000	4 138 156

Source: ARIS, 2017

47. The new SLF pasture management system has already generated impressive positive impacts in improved governance with transparent allocation of use rights. The results include a dramatic reduction in conflicts between users, improved physical access to resources, and infrastructure improvements due to significant revenue increases from the pasture use fees. The JCs were able to collect more than 130 million KGS in pasture fees in 2016, which is 20 times more than in the pre-reform years. The use fee per head of livestock is still quite low, ranging from 68-120 KGS per livestock unit a year (US \$1-1.7) in 2016. But a huge shift of behavior should be noted, with users now paying pasture fees for resources that before they used for free. Some JCs have started to differentiate payment rates based on the condition of infrastructure and pasture areas as specified in the management plan.

48. While there has been an increase in overall grazing areas in the country due to improved access and rehabilitated pasture infrastructure, such as roads and bridges, the condition of natural resources has not yet improved. Reviews of the PMPs demonstrate that many are of inadequate quality, and no more than 60 percent of the JCs were able to enforce herd mobility for pasture rotation.¹⁰ All of this dictates the necessity of another push to further improve pasture management and make it environmentally sustainable and climate resilient. The major two bottlenecks have been i) lack of policy and legislation, tools and methodologies for the national monitoring of pasture use; and ii) lack of

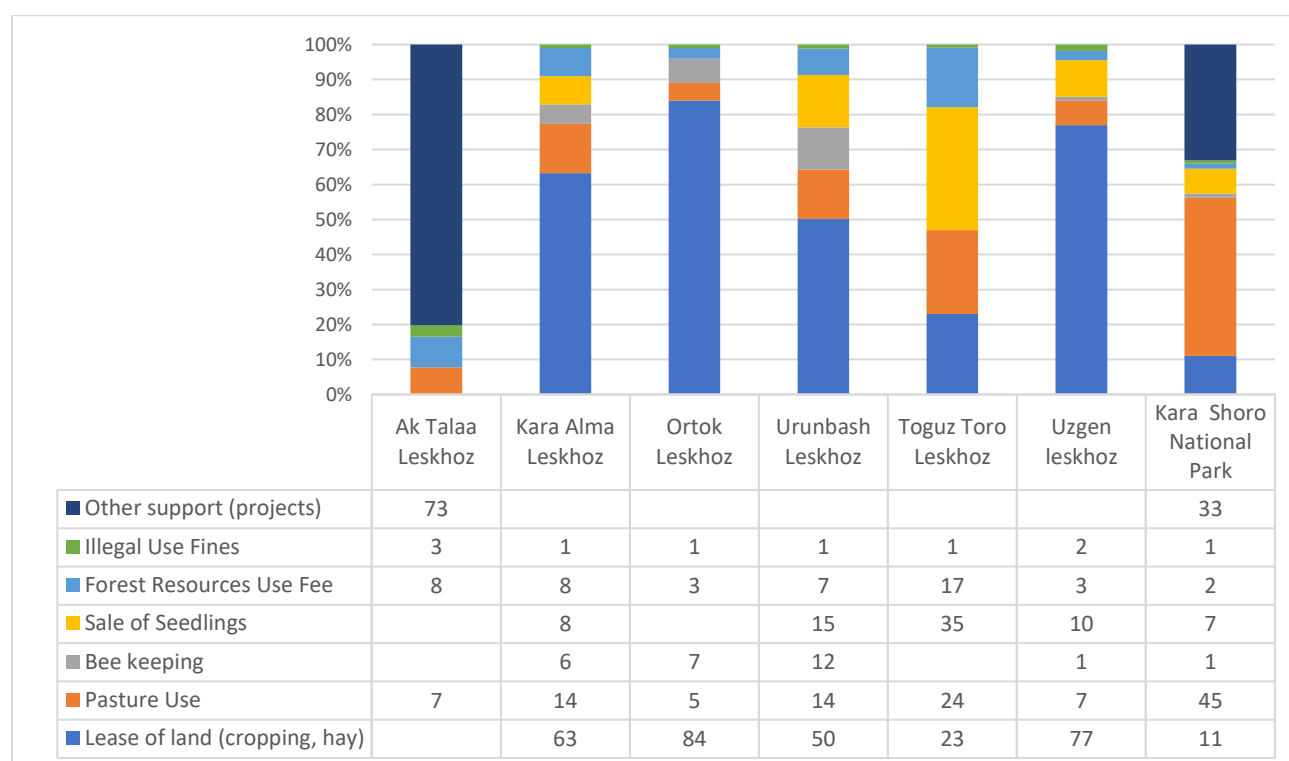
¹⁰ Livestock and Market Development Project, IFAD, Aide memoire, august 2017

capacities to develop and transfer climate resilient technologies for pasture improvement.

49. Improved access to pastures contributed to an increase of livestock of at least 12 percent during the last five years, and consequently improved the livelihoods of livestock communities. At the same time, such an increase raises serious concerns regarding the preservation and sustainability of pasture and forest resources, which now experience even more pressure. In order to arrest further degradation, policies and measures are needed to restrain an increase of livestock where natural pastures are limited, and support farmers in increasing livestock productivity and diversifying their livelihoods especially in remote mountainous areas.

50. Implementation of action plans by the *leskhoz*es on the SFF have experienced difficulties. For instance, the main source of funding for operations in target *leskhoz*es is from leasing land for cropping and hay making (Figure 4). A significant part of a *leskhoz*'s revenue comes from the lease of pasture plots.

Figure 4. Sources of revenue of the CS-FOR target *leskhoz*es



SAEPF, 2017

51. *Leskhoz*es receive limited state funding, which is not sufficient to cover operational costs. Considering their own revenue, the total funding of *leskhoz*es is still very meager, ranging from about US\$21,000 to US\$132,000 annually. That limited budget is neither sufficient to protect nor to improve forest resources. For instance, the total budget of the Ak Talaa *Leskhoz* in 2016 was 6.2 million KGS or about US\$21,000, which is less than 40 cents per ha of the *leskhoz*es total land. Even in Ortok *Leskhoz*, which has the highest revenue per hectare among all target forest areas, the available funding is only about US\$5.80 per ha.

Table 4. Revenue of the target *leskhoz*es in 2015-2016

Region	District	SFF	Revenues			
			From various use fees, thousand KGS		State budget for salary and activities, thousands KGS	
			2015	2016	2015	2016
Naryn	Ak-Talaa	Ak Talaa <i>leskhoz</i>	1,293.6	1,565.0	5,571.2	6,051.7
Osh	Uzgen	Uzgen <i>leskhoz</i>	4,599.9	5,053.4	3,361.9	3,936.9
		Kara-Shoro National Park	1,350.7	1,069.4	2,445.0	2,342.5
Jalalabad	Toguz-Toro	Toguz-Toro <i>leskhoz</i>	966.6	1,039.2	3,459.3	3,905.0
	Suzak	Kara-Alma <i>leskhoz</i>	3,304.0	3,783.2	3,856.2	4,971.8
		Ortok <i>leskhoz</i>	2,829.9	3,672.8	2,846.4	3,296.9
		Urumbash <i>leskhoz</i>	1,704.9	1,645.9	1,438.1	1,740.8

Source: SAPEF, 2017

52. All forest lands in Kyrgyzstan are protected and managed by 913 employees. Considering the SLF area in country of 26,178 km², each employee must protect and improve about 30 km² of land. Due to insufficient funding, *leskhoz*es are not capable to meet annual targets for afforestation established by the SAEPF. For example, the land area in Ak Talaa *leskhoz* is about 82,000 ha. With its funding, the *leskhoz* had less than one dollar for maintenance in the area, and less than US\$3.5 per ha of forest cover land. This is a universal picture for all *leskhoz*es in country, which struggle to preserve and improve forest resources. While *leskhoz*es report afforestation of target areas on the lands of the SFF according to the plans, the survival rate of the planted seedlings is low. Thus, in pilot areas, where plantings have been conducted according to the management plans of *leskhoz*es, the survival rates of seedlings do not exceed 60 percent on average. According to Management Plans in 2010-2015, *leskhoz*es were responsible for planting fast-growing trees, but according to field interviews, only half of the trees planted during the first years survived. The main challenges reported by the *leskhoz* management related to low survival rates of seedlings due to changing climatic conditions – freeze in late spring and hot temperatures in summer; shortage of irrigation water; an increasing number of animals grazing on forest lands; and lack of human resources to take care of seedlings.

53. Another problem in implementation is linked to the top-down planning, with plans not reflecting local conditions and needs. For example, the main species planted in Suzak and Uzgen were walnuts, according to the interviews with *leskhoz* management. But plans do not consider the need to plant coppice, such as fruit trees and shrubs, which are important according to local rangers to protect main trees from frost in the spring and from high temperatures in the summer. The trees are important to prevent soil degradation, floods and landslides. *Leskhoz*es tend to know better what plants and trees to use for afforestation and where, however this knowledge is often neglected in the inventory and NAPs. Afforestation on lands outside of the State Forest Fund have also been problematic, with a lack of cooperation from local government bodies and communities, which do not want to allocate irrigated land for afforestation and have little incentive to protect and maintain a young forest.

54. The targets for natural forest regeneration have also not been achieved in full because forestry enterprises are not capable to protect the forests from livestock grazing. The existing framework and fragmented responsibilities of the state and local government institutions have led to a near extinction of the riparian forests. Those forests are under huge stress, since the lands are used for grazing, cultivation, illegal felling and fuel collection, all at the same time. These forests are highly exposed to fragmentation due to unclear responsibilities and management overlap among the local governments, *leskhoz*es, PCs and Water Fund. It is important to take into account riparian forests in establishing ecosystem-based natural resource management due to the forests' huge significance for strengthening resilience to climate change.

55. The CS-FOR Project will pilot a collaborative resource assessment and develop Integrated Natural Resources Climate Resilient Management plans using remote sensing, climate maps and various zoning and stratification approaches. These plans will be developed with *leskhoz*es, local governments and JCs as the drivers of the process. The Project will develop and test implementation arrangements for INRCRMPs with the engagement of the private sector and local communities. Improved governance of the pasture-forest ecosystem would create enabling environment for private investments into afforestation. These approaches will feed into an improved policy and legal framework for managing rangeland-forest ecosystems.

Past and Ongoing Development Projects/Programmes (see Annex 2 for details)

56. Forestry Sector reforms were supported for more than a decade by the Swiss Development Corporation (SDC) until 2008. The SDC provided technical support to the SAEPF to develop the Concept of Forestry Development of 1998, and a set of legal instruments, including for the CFM. It also provided support in development of forestry inventory methodologies and tools. FAO has supported the forestry sector with the development of the new Forestry Sector Concept and Action Plan (2017). The FAO/GEF Sustainable Management of Mountain Forests and Land Resources of the Kyrgyz Republic under Climate Change Conditions was implemented in 2013 and will be completed in 2018. The Integrated Forest Ecosystem Management Project (2016-2021) funded by the WB/GEF in the amount of US\$16.11 million was implemented by the SAEPF. The Project's objective is to strengthen the capacity of government institutions and communities to improve sustainable forest ecosystem management through investments in management planning, ecosystem restoration, and infrastructure.

57. Pasture management reforms have been supported mainly by the UNDP (Suusamyrl Valley Project), the World Bank (Agriculture Investment Support Project, Pasture Management Improvement Project), IFAD (Livestock and Market Development Project I and II), Aga Khan Foundation and GIZ.

58. Climate change initiatives are being supported primarily by UNDP, the European Bank for Reconstruction and Development (EBRD), the Japan International Cooperation Agency (JICA), FAO, IFAD and the World Bank. Support to enhance the national hydrometeorological service (Kyrgyzhydromet) is being provided by the World Bank.

Lessons Learned and recommendations

59. The preparation of the CS-FOR Project included a review of international best practices, as well as lessons learned from various pasture and forestry development interventions in Kyrgyzstan. Major lessons learned included:

- There is a need to have clear incentives for all stakeholders to participate in ecosystem based adaptation planning and implementation. These incentives should be clearly spelled out and explained to all participants.
- Natural resources inventories and assessment methodologies should be based on scientific knowledge with a use of new technologies, including georeferencing and remote sensing, but at the same time practical and not too complex for community stakeholders to adopt them.
- Community and private sector engagement in afforestation and pasture improvement need to be based on clear and secure tenure arrangements. Greater involvement of non-governmental organisations (especially in farm forestry development) could also be crucial. To achieve that, economic and non-economic incentives will be required (see Textbox on Balykchy *leskhoz*).

In Balykchy *leskhoz*, a partnership between *leskhoz*, community, local government and private entrepreneurs is based on leasing low-productive *leskhoz* lands to private tenants. Leasing is based on competitive auctions announced in the community, and land plots are provided for rent after careful evaluation of applications and their description of use purposes, protection activities and proposed rehabilitation work. The evaluation of the applications is made by an established Steering Committee, consisting of representatives of different local institutions and users. *Leskhoz* supports private tenants with consultations, provided land plots with irrigation through donor funding. Balykchy *leskhoz* also lease forestland based on a Collaborative Management of Forest Resources approach, mostly for purposes of wood production, with 70 percent of wood to be owned by users, and the remaining 30 percent by *leskhoz*es. *Leskhoz* already has 40 ha of lands with fast-growing trees and around 1,000 people are involved in the Collaborative Forest Management scheme. In addition to planting fruit trees, which comprise 70 percent of all leases, renting forest lands in Balykchy *leskhoz* for recreation services is of interest to local people, since the price for leasing forest plots for recreation services is much higher than for planting trees. During the last year *leskhoz* collected 4 million KGS from renting land, and 30-40 percent from providing services.

PILOT AREAS

60. Four districts in three regions were selected for the Project to implement mitigation activities and ecosystem-based adaptation approaches, and to feed accumulated experience and knowledge into a revised pasture and forest ecosystem management framework. These districts are Ak Talaa in Naryn region, Toguz-Toro and Suzak in Jalalabad region, and Uzgen in Osh region. These areas are vulnerable to climate change, with almost 90 percent of the communities in more than 260 villages of the 50 *ayil aimaks* (AA) heavily dependent on forest and pasture ecosystems. The number of beneficiaries in these districts is more than half a million, or about 15 percent of the total rural population of the country (Table 5).

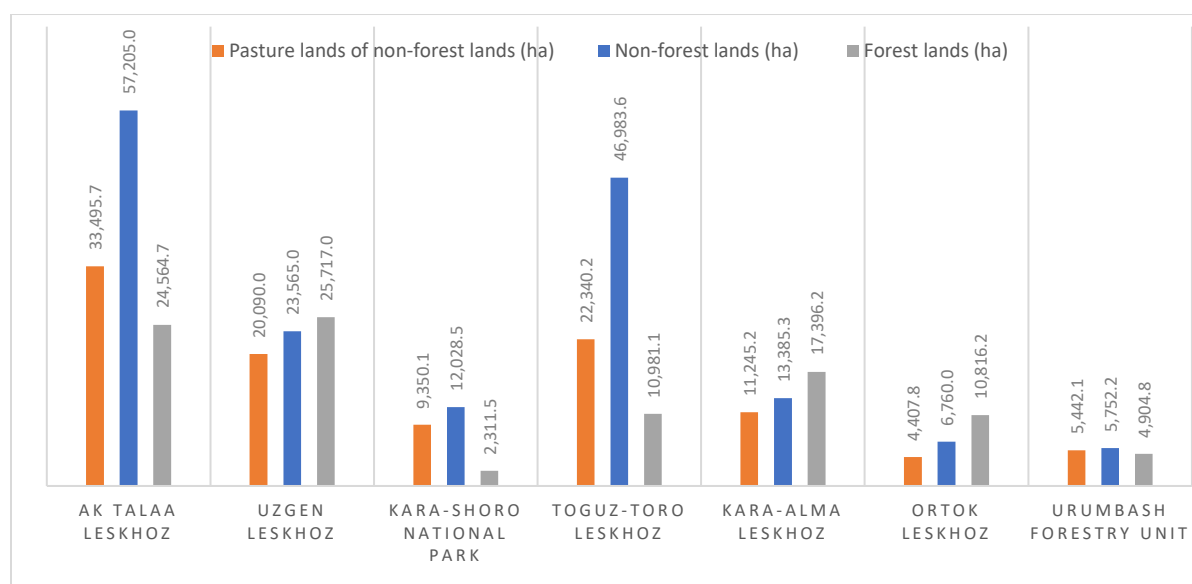
Table 5. Pilot districts and population

Region	District	Number of AA (2016)	Number of villages (2016)	Number of households (2016)	Population (2016)	Number of cattle (2016)	Number of ruminants (2016)	Cultivated land (ha, 2016)
Naryn	Ak Talaa	13	19	8 266	38 008	11 853	111 523	15 425
Jalalabad	Toguz Toro	5	14	5 361	24 592	9 673	37 178	9 291
	Suzak	13	129	45 788	272 096	66 780	246 845	43 894
Osh	Uzgen	19	99	37 205	256 400	60 920	204 767	42 853
Total	4	50	261	96 620	580 787	149 226	600 313	121 463

Source: NSC, 2017; ARIS, 2017

61. There are five *leskhoz*s (Ak Talaa, Uzgen, Toguz Toro, Kara Alma, and Ortok), one forestry unit (Urumbash), two National Parks (Saimaluu Tash and Kara Shoro) and a nursery in the four targeted pilot districts. More than 395,000 people live in 39 AA near these forest areas. The total land area of target *leskhoz*s and national parks is about 262,000 ha, with more than 60 percent of the area not covered by the forest and shrubs, and about 40 percent of the total land area used as grassland pastures for grazing livestock of neighbouring communities (Figure 5). Large areas of the *leskhoz*s in the pilot districts are not covered by forest.

Figure 5. Covered by forest, non-forest and pasture lands in targeted forestry enterprises



Source: SAEPF, 2017

62. Forest covered areas make up less than a third of all *leskhoz*s territories (Table 6).

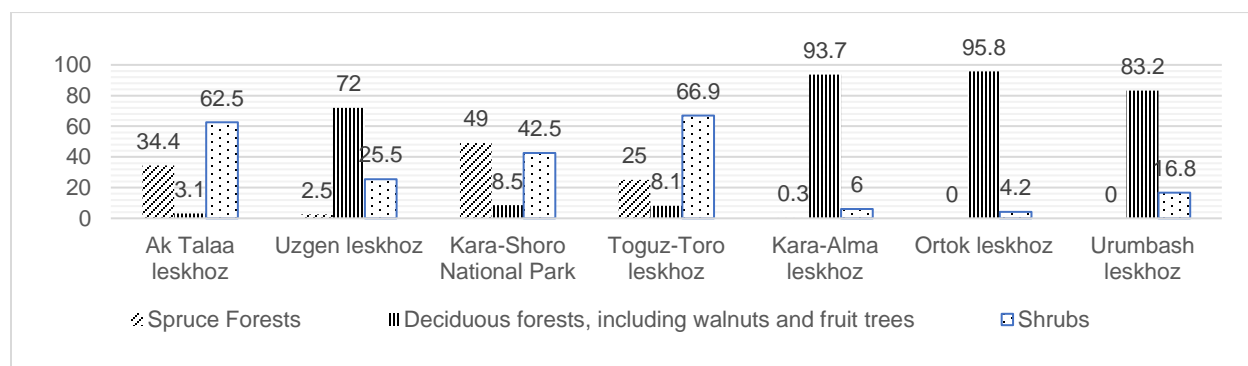
Table 6. Key data on pilot *leskhoz*s

Region	District	State Forest Fund (SFF) Leskhozes and national parks	Total land area (ha)	Total forest lands (ha)	including lands, covered with forests (ha)	including other forest lands (ha)	Total non-forest lands (ha)	Arable lands (ha)	Pastures (ha)	Main resources used by local people	Ayl aymaks close to SFF	Population
Naryn	Ak-Talaa	Ak Talaa leskhoz	81,769.7	24,564.7	18,896.5	5,668.2	57,205.0	119.1	33,495.7	Wood, pastures	13	37,200.0
Osh	Uzgen	Uzgen leskhoz	49,282.0	25,717.0	18,214.0	7,503.0	23,565.0	111	20,090.0	Wood, pastures, nuts, mushrooms, berries, growing rice	6	57,841.0
		Kara-Shoro National Park	14,340.0	2,311.5	1,315.5	996.0	12,028.5	6.3	9,350.1	Wood, pastures, recreation activities	2	12,566.0
Jalalabad	Toguz-Toro	Toguz-Toro leskhoz	57,964.7	10,981.1	9,450.6	1,530.5	46,983.6	44.7	22,340.2	Wood, pastures	5	24,592.0
	Suzak	Kara-Alma leskhoz	30,781.5	17,396.2	13,947.5	3,448.7	13,385.3	119.8	11,245.2	Wood, pastures, nuts, mushrooms, berries	13	262,995.0
		Ortok leskhoz	17,576.2	10,816.2	10,237.8	578.4	6,760.0	137.8	4,407.8	Wood, pastures, nuts, mushrooms, berries		
		Urumbash leskhoz	10,657.0	4,904.8	3,804.2	1,100.6	5,752.2	53.4	5,442.1	Wood, pastures, nuts, mushrooms, berries		
		Kara Darya Nursery*	50.0	50.0		50.0						

Source: SAEPF, 2017

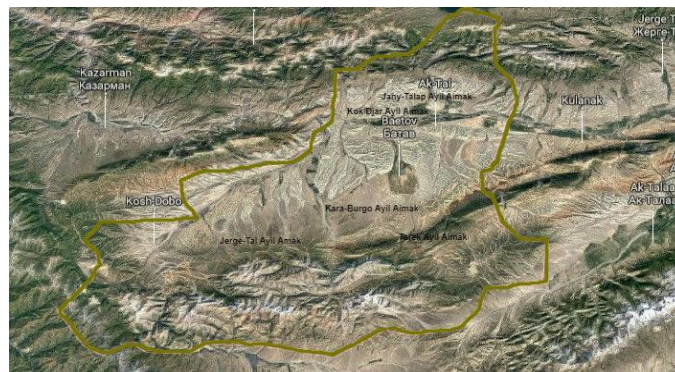
63. The target *leskhoz*s have different type of forests: coniferous with mostly spruce trees; forest areas covered with shrubs; and nut and fruit tree forests (Figure 4). The type of dominant trees in the forest influences the livelihoods of the neighbouring communities. Coniferous forests serve mostly as a source of timber and fuelwood for local communities; nut and fruit forests serve as a source of income from selling NTFPs.

Figure 6. Forest type in target *leskhoz*s and national park



Source: SAEPF, 2017

64. Ak-Talaa district in Naryn region has an area of 7,266 km² with a population density of 4.4 people per 1 km². It is located along the watersheds of the Tian Shan mountain range and Naryn river with several inflows -- Terek, Jaman-Davan, Konorchok, and Kurtka. It is estimated that 86 percent of the lands in this district are at risk of landslides and mudflows¹¹. The area is a high altitude forest and meadow zone. There is one Ak Talaa *leskhoz* in the district with an area of 81 769.7 ha, of which 23 percent is covered with coniferous forest.¹² Meadows are covered with tall grasslands used for grazing livestock in the summer.



65. The map of Ak Talaa district reveals a rough terrain. Villages are located far from each other at 1,600 meters asl and higher, and less than 3 percent of the land in the region is arable. More than 50 percent of the land is not accessible to people and another 50 percent is used as pastures. The livelihood of the residents of this district is mostly livestock-based, with an estimated 111,523 ruminants and 11,853 cattle in 8,226 households (an average of 1.4 cattle and 13 ruminants per household). The livestock rearing here highly depends on climate and weather, and early frosts and droughts often cause devastating impacts to livelihoods in the area.

66. Toguz-Toro is a small district in Jalalabad region neighbouring Ak Talaa district along the Naryn and Kok Irim rivers. It has a land area of 3,816 km² and less than 4,000 people, for a population density of less than 7 people per 1 km². It is a very remote and mountainous area, situated between 1,150 and 4,351 meters asl. More than 85 percent of the area, especially along the rivers, is at risk of natural disasters, such as landslides and mudflows. There is one Toguz-Toro *leskhoz* protecting coniferous forests which make up 6 percent of a total *leskhoz* area of 57,964.7 ha.

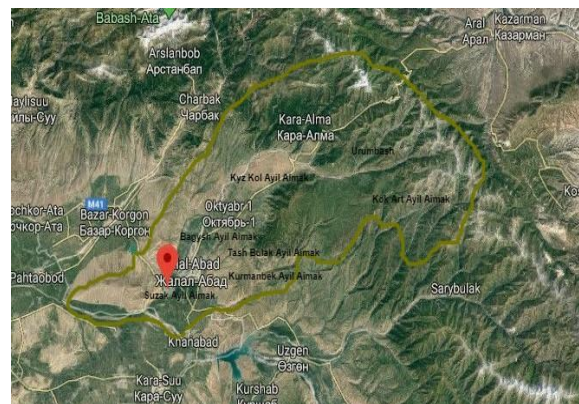


67. The population of Toguz-Toro used to be engaged in gold mining, an industry still functioning but on a small scale. Livestock is the main production system in an area with limited arable land and even less irrigated.

¹¹ Ministry of Emergency, МОНИТОРИНГ, ПРОГНОЗИРОВАНИЕ ОПАСНЫХ ПРОЦЕССОВ И ЯВЛЕНИЙ НА ТЕРРИТОРИИ КЫРГЫЗСКОЙ РЕСПУБЛИКИ, 14 издание, 2017

¹² Data provided by the SAEPP, 2017

68. Suzak is a very large population district located in Jalalabad region. It has an area of 3,091 km² and a population of 277,500 people with a density of 92 people per 1 km². It is composed of 13 AA and 129 villages. Most of the district is situated at 1,600 meters, with the highest point at 3,900 meters. Main rivers are Kara-Darya, Kok-Art, Kara-Alma and Chagnet. Nearly 90 percent of the district is at high risk of exposure to disasters such as floods, landslides and mudflows. In 1998, a catastrophic flood of the river Kok Art destroyed around 1,000 dwellings in Suzak.



69. There are two *leskhoz*es – Kara Alma and Ortok – a nut farm (*orekhsosovkhoz*), Urumbash forestry unit and the Kara-Darya nursery in Suzak district. During the Soviet period, these enterprises employed the majority of the local population in nut and fruit tree planting, forest maintenance and NTFP harvesting. There were several furniture workshops during the Soviet period, but they mostly processed imported wood. These *leskhoz*es now function on a reduced scale, leasing out forest and pasture land to communities. The population of Kara Alma AA resides directly within the *leskhoz* area. It has no agricultural land except for kitchen gardens, of less than 0.1 ha per household. People rely on forestlands not only for non-timber purposes, but also for livestock grazing. Other *ayil aimaks* of Suzak rayon have borders with the Urumbash forestry unit, Kara-Alma and Ortok *leskhoz*. Around 11 percent of *leskhoz*es' area are lands used for grazing and 25 percent of *leskhoz*es' income comes from pasture users renting forest pastures for grazing purposes.

70. Uzgen district in Osh region has a large area of 3,308 km² with a population of around 256,000 people. This district is the most densely populated among all targeted areas, with 77.5 people per 1 km². There are 99 villages and small cities in 19 AA and Uzgen town, which have 37,205 households. Main rivers are Kara-Darya, Yassi, and Kurshab. The area is extremely vulnerable to climate change marked by a significant decrease in the amount of precipitation that falls as snow, and an increase in rain, which affects glacier melting. More than 75 percent of the district's area is under the risk of mudflows and landslides. Massive landslides in 2017 took the lives of 24 people in the area.



71. Forests in Uzgen district provide income to about 70 percent of the local population, who sell non-timber forest resources and conduct other types of activities on forestry territories, such as livestock grazing and tourism. Uzgen *leskhoz* has a large territory of 49,282 ha (38 percent of the *leskhoz* is covered with forests, 40 percent of its lands are used for grazing, and 10 percent of the land is under walnut forest). Almost all AAs of the district lie on the borders with Uzgen *leskhoz*, while several settlements are surrounded by the forest. There is also Kara-Shoro National Park in the rayon, which area is around 14 340 ha and it has protected area in it.

RATIONALE

72. An overwhelming number of Kyrgyzstan's poor live in remote mountainous areas, their livelihoods heavily dependent on natural resources in these fragile ecosystems. Any natural disaster can push them over the edge into extreme poverty and, in recent years, those disasters – floods, mudflows, landslides and avalanches -- have significantly increased in part due to climate change such as rising temperatures and rapid snow and glacier melt. In some cases, whole villages have disappeared under

the mudflows.¹³ To reduce vulnerability to climate change, strengthen resilience, and reduce greenhouse gas emissions, it is urgent to arrest resource degradation and to regenerate them. The key measure in Kyrgyzstan is to improve governance in managing these resources in order to prevent livestock overgrazing and overharvesting of fuelwood and timber, and to create an enabling environment that stimulates innovative technologies and investments that conserve and regenerate natural resources.

73. Poor governance in the management of natural resources has been one of the major stumbling blocks in the economic development of mountain communities and in enhancing environmental sustainability. With rapid climate change and deterioration of natural resources, the urgency of addressing an appropriate, and functioning, management framework is growing. The current policy and regulatory environment is weak and not conducive to sustainable management, community involvement and private investments. It is highly fragmented and dictated by a narrow view of the resource: a productive function reflected by livestock grazing and a protective function of forest. About 1.2 million ha of pastures, located on the State Forest Fund lands, are managed differently than the 9 million ha of municipal pastures. Forests on municipal-owned lands in general are neglected and over-exploited.

74. Two sets of legislation fail to support effective tenure arrangements and contradict each other, contributing to the conflicts on the ground between users and managing bodies. Several institutions in charge of forest-pasture ecosystem resources operate in isolation, and do not make efforts to synergize tenure regimes and arrangements. Such an uncooperative situation leads to further, rapid degradation of fragile mountainous resources, affecting not only upstream but downstream communities and countries. The feasibility study identified the following key legal, institutional and implementational barriers:

- Lack of technical capacity at the local and national level in assessing climate change risks and trends, and providing methods and arrangements in policy and decision making to strengthen resilience of mountainous forest-pasture ecosystems;
- Lack of harmonization and convergence of forest-rangeland management approaches and tenure arrangements;
- Lack of tenure arrangements, mechanisms and incentives for communities and community user groups, local governments, and private sector agents to participate in management and improvement of forest-rangeland resources;
- Lack of tools, an enabling environment, and arrangements for state monitoring of forest-rangeland ecosystems and enforcement capacity at the national level.

75. Without proper and functioning forest-rangeland ecosystem policy and legislation, backed by supporting environmental legislation, management of these resources have been and will be inefficient. As described in feasibility study, this can be seen by the fact that pastures are overgrazed, and forest resources are overharvested and degraded. Afforestation activities conducted by local forest enterprises have a very low survival rate due to poor land preparation, poor seedling quality, and lack of maintenance. The country lacks institutional and community capacity to evaluate climate change risks and appropriate ways to build resilience. While there is systematic collection and analysis of data and information on current climate variability and consequences, which would inform decision making, monitoring systems are very weak to guide policies on resource management and use under changing weather patterns. Forecasting and modelling knowledge is non-existent and would require external support.

76. The Kyrgyz Republic ratified the United Nations Framework Convention on Climate Change (UNFCCC) in 2000 and the Kyoto Protocol in 2003. The State Agency on Environmental Protection and Forestry (SAEPF) was nominated as the Designated National Authority (DNA) for climate change.

¹³ Ministry of Emergency of the Kyrgyz Republic data

77. There is a strong will with the new President and Cabinet to create an enabling environment for sustainable management and resilient livelihoods. The Government of Kyrgyzstan has ambitious plans reflected in the National Sustainable Development Strategy 2040 and accompanying state programme “Forty Steps” (especially Steps 39 and 40), which recognize the importance of mitigation and adaptation to climate change by supporting mountainous ecosystems, preserving forest ecosystems and their biodiversity, and regenerating natural resources. These goals are to be achieved by establishing an adequate legal framework and providing state support for environmental protection and afforestation/reforestation of fragile mountainous areas.

78. The Climate Change Adaptation Programme and Action Plan for 2015-2017 for the Forest and Biodiversity sector and the draft Concept of Forestry Development 2040 aim to reduce poverty of the forest communities by 10 percent, 50 percent increase of the contribution of the forestry sector to national GDP from 0.05 percent, and increase forest cover from 5.7 to 6 percent. The Government’s estimates indicate that the cost of GHG emissions reduction measures total US\$17.6 billion¹⁴.

79. Within the framework of the PPCR, the Government has started developing the Strategic Programme for Climate Resilience (SPCR) and established a Climate Finance Coordination Mechanism (CFCM), including a Climate Finance Centre (CFC) in 2017. It is expected that the CFCM and CFC will become fully operational in 2018. UNDP is providing support to the Kyrgyz Government, including the MES, MAFIM of the Kyrgyz Republic, and the SAEPF in development of the National Policy for the Adaptation to Climate Change (NPACC).¹⁵ FAO is a partner in the process focusing on forestry and agriculture sectors. The main findings and policy directions of this document are reflected in the CS-FOR proposal. However, with the lack of technical capacity in the country, it is expected that the CS-FOR will be a major contribution to the strengthening of these arrangements and facility.

80. The CS-FOR will support the Government of Kyrgyzstan in pursuing ecosystem-based adaptation as declared in the Climate Change Adaptation Programme and Action Plan for 2015-2017 for the Forest and Biodiversity sector. It will adopt a participatory, evidence-based approach to Kyrgyzstan’s most vulnerable mountainous areas, enabling national institutional capacity to be informed by evidence and lessons learned from the four large pilot areas. Strengthening the national institutional and legal framework for climate resilience will provide the umbrella for long-term transformational change. An improved framework will contribute to a more effective mainstreaming of climate resilience in vulnerable economic sectors, such as forestry and livestock, and enable lessons learned from the field to be progressively scaled-up. The project will integrate climate risk management into national and sub-national planning, thus seeking to change the long-term resilience of vulnerable populations, exposed assets and natural systems to climate stresses. It will introduce new approaches and technologies, including innovations in pilot areas. The four major priorities are:

1. Set up facilities and tools, and create capacities for assessing and forecasting availability and resilience of forest-rangeland resources using innovative technologies in line with climate change trends and risks;
2. Improve the planning process at the national and community level through stratification and zoning of forest-rangeland resources based on assessment and climate change trends;
3. Create sustainable legal and institutional conditions, mechanisms and tenure arrangements for communities, local agents and private sector to access, use and improve forest-pasture resources, to arrest degradation and to stimulate investments in afforestation, resources

¹⁴ Government of the Kyrgyz Republic. 2009. Second National Communication of the Kyrgyz Republic to the United Nations Framework Convention on Climate Change. Bishkek.

¹⁵ CBD definition: “the use of biodiversity and ecosystem services to help people adapt to the adverse effects of climate change”

- improvement and maintenance;
- 4. Establish mechanisms and arrangements for feeding climate change data and information into decision-making in all sectors of economy.

Component 1 Evidence based Strengthening of NRM Governance

81. Component 1 will have a national scope. By 2024, through evidence-based, gender sensitive, participatory and inclusive processes pasture-forest ecosystem related strategies and legislation will be harmonized and incorporate biodiversity and climate change mitigation issues. By 2024 established by the CS-FOR Project Community Landscape Management Groups (CLMGs)*, which would include member-based community organizations (e.g., Pasture Users Unions, Forest Committees, Water Users' Associations), forestry enterprises and self-government bodies (*ayil okmotu*) will develop integrated, gender sensitive, and adaptive NRM and climate resilience plans and monitor their execution.

82. Component 1 will have two sub components: 1) Integrated Framework for Resilient Forest- Pasture Ecosystems; and 2) Forest-Pasture Ecosystem Planning and Monitoring. The component will support activities, aimed at: (i) improving livelihood, forests and rangelands data and information quality and accuracy at national level; (ii) supporting integrated landscape management planning; (iii) strengthening technical and managerial capacities of different national, regional and local stakeholders; and (iv) strengthening relevant institutional and legal frameworks

83. Sub Component 1.1: Integrated Framework for Resilient Forest- Pasture Ecosystems (US\$2 million). That sub component will aim to facilitate climate change adaptation and carbon emission reduction from land use through harmonization of the forest-rangeland ecosystem policies. It will seek to support the government's vision of institutional reforms to strengthen the legal and institutional frameworks governing forests and rangelands resources. During the preparation phase, an evaluation of these frameworks identified key strengths and weaknesses and suggested some recommendations and options to strengthen these frameworks. The sub-component will be implemented by the Climate Finance Center in close collaboration with other concerned institutions.

Outcome 1: Strengthened institutional and regulatory systems for climate-responsive planning and development.

- Indicator A5.1: Degree to which gender-sensitive policies, institutions, coordination mechanisms and regulatory frameworks are effective for climate resilience

Outcome 2: Strengthened institutional and regulatory systems for low-emission planning and development.

- Indicator M5.1: Degree to which gender-sensitive policies, institutions, coordination mechanisms and regulatory frameworks are effective for low-emission planning and development.

Key activities

Participatory policy and legislation review and improvement (US\$2.0 million).

84. Intermediate Outcome 1.1: Gender sensitive evidence-based national policies and strategy on integrated forest-pasture management ecosystem with consideration of biodiversity and climate change mitigation elaborated in a participatory manner.

Outputs:

- Report on legal analysis, innovative management practices of existing policy and legislation framework for rangeland-forest ecosystem incorporating biodiversity and climate change issues and mitigation measures;
- Capacity needs assessment report of the pasture-forest ecosystem stakeholders;
- National Platform for Pasture-Forest Ecosystem Management is established and consultations on changes to the policy framework conducted;

- Gender assessment and action plan developed, implemented and monitored.

85. Project will recruit local and international technical assistance and establish Expertise Group, which would include international NRM policy expert – Team Leader, i) local forestry and pasture specialist, ii) NRM lawyer, iii) environmental specialist; iv) capacity building/communications specialist, and v) gender specialist to conduct stocktaking review and analysis of current legislation, identification of legal gaps and ambiguities in sectoral policies and regulations; identify improved and innovative integrated climate resilient grazing and forestry management practices; conduct special studies on climate change, biodiversity, conduct assessment of needs and capacities of stakeholders, including of vulnerable groups and women – users of the pasture-forest ecosystem resources. Project will facilitate consultations with local government bodies, leskhozoes, PUUs and other community groups and users in four target districts on identification of policy elements for integrated and participatory forest-pasture management and use.

86. The system of documenting lessons and evidences will be established to channel lessons and results to the policy and decision makers. Project might sub contract local NGOs and/or users associations to develop participatory methodologies to ensure that all stakeholders participate in the planning process through introducing accountability mechanisms, such as participatory monitoring, citizen's based scoring assessment, and etc.

87. The discussion and consultations at the national level will be conducted at the National Platform established for policy discussions and consultations. The National Platform will engage policy makers, representatives of various ministries and agencies, NGOs, private sector and practitioners in area of forest and pasture management.

88. **Intermediate Outcome 1.1.2:** Revisions to legal framework on sustainable and harmonized tenure arrangements for forest-pasture ecosystem resources developed incorporating climate change mitigation measures.

Outputs:

- Revisions to the legislation regarding tenure arrangements for pasture-forest ecosystem management and use are drafted, presented to and consulted with the National Platform and approved by the CCCC;
- Concept for management of municipal forest developed, presented to the National Platform and approved by the CCCC;
- Legal arrangements for management and use of municipal forest are developed;
- Methodology for national assessment/monitoring of pasture-forest ecosystem is developed and approved;
- Methodologies for development and implementation of the Integrated NRM Climate Resilient Plan is finalized and approved (resources assessment and inventory, geo referencing, stratification and zoning, and etc).

89. The Expertise Group will attract international experts on a need basis, including on climate change mitigation, forest information systems, forestry specialist, pasture specialist. With the input from international and local technical assistance, Project will conduct legal review of forest and rangeland management legal and normative acts and elaborate revisions to existing tenure arrangements to ensure sustainable resources management with fair provision of access to the resources and facilitate co management of resources by authorized bodies and communities through clear and harmonized arrangements to be reflected in legislation. Legal and technical assistance will be provided to the Agency for Local Self Government and Interethnic Relations to elaborate tenure framework and arrangements for management of municipal forests and produce methodological materials to be disseminated.

90. Project will develop a methodology for Integrated NRM Climate Resilient Plans considering all issues of environment and biodiversity protection. It will also elaborate standards of sustainable use of rangelands and forests, methods and tools for monitoring and compliance requirements and

arrangements. The Expertise Group will develop various legal and institutional approaches to advance public-private partnership in promotion of integrated natural resources management.

Sub-Component 1.2: Forest-Pasture Ecosystem Planning and Monitoring (US\$3.0 million).

Outcome 3: Increased generation and use of climate information in decision making

- Indicator A6.1: Number of effective climate information products/services for decision-making in climate-sensitive sectors developed, delivered, and used

Outcome 4: Improved management of land or forest areas contributing to emissions reductions

- Indicator M9.1: Total hectares of land or forests areas and percentage of land in relevant jurisdiction (by type) under improved protection and management leading to reduced GHG emissions and/or enhancement of carbon stocks respecting environmental and social safeguards

Intermediate Outcome 1.1.3: Improved knowledge, skills and capacity of central, local self-government/Leskozes/Pasture Committees and CLMGs in integrated management of NR and climate change mitigation.

Outputs:

- Informational awareness campaign on climate change issues and mitigation measures at the national level and in the target areas developed and delivered;
- Methodology and training modules on pasture-forest ecosystem management and use are developed (elaboration of the INRMCRP, including resources assessment and inventory, management plans implementation and monitoring);
- Capacity building of Leskozes/Pasture committees/Ayil Okmotus in Community Landscape Management Group (CLMG) in target AA on INRMCRP development, implementation and monitoring;
- Capacity building of stakeholders especially within the CLMGs on innovative methods to mitigate climate change impacts;
- Stakeholders trained on revised policy/strategy and tenure arrangements
- Technical reports on assessment of forest-pasture ecosystem resources, zoning and stratification, climate change trends and risks in target areas prepared;
- Establishment of GIS-based IFRIS and MRV systems with enhanced capacity of managing staff
- Improved skills and capacity in promotion of climate resilient and adaptive NR management and use in policy and decision making

91. Project would develop informational materials on climate change impacts and how they affect pasture-forest ecosystem and its resources. The campaign will be conducted through making and translating short films, social advertisement and other means in the mass media. Special attention will be on developing such materials for schools to be incorporated in classes to raise awareness in target communities. Various community information events will be held to attract attention of resource users to climate change impacts and mitigation measures.

92. Project will develop training methodologies and materials on INRMCRP and other issues of pasture-forest ecosystem management and use, organize training for local government, *leskhozes* and CLMGs on new arrangements for pasture-forest ecosystem management and monitoring arrangements. Technical assistance will be provided to increase capacities at subnational and local levels for coordinated implementation of NRM and SFM policies, including strong cooperation between forestry organizations, pasture associations and local government. Information dissemination and capacity building programme will be developed to target decision makers on various source of funding for SNRM that includes carbon finance, especially in the international context of carbon sequestration in grasslands.

93. This sub-component will aim to enhance capacities on climate change risks and natural resource assessments, support the development of an Integrated Forest and Rangeland Information System (IFRIS), and facilitate linkages between the data and information systems and the forest-pasture ecosystem planning processes. It will seek to collaborate with academia, line ministries (primarily SAEPF, MAFIM, SALSGIR and MES), *leskhoz*es, NGOs, local governments and community users' groups to draft regulations on pilot coordination for climate change adaptation and climate-resilient solutions in the four target districts. It also will finance studies to advise on forest-pasture zoning, stratification and planning, spatial and territorial development, GIS and remote sensing-based assessment of resources, modelling of climate change trends, recommended use of resources for Forest-Pasture Ecosystem and Climate Resilience Assessment, and guidelines for the Integrated forest-rangeland ecosystem management plans. The sub-component will seek to provide evidence to inform the policy and legislation framework, recommendations to SPCR, and relevant sectoral strategies and plans for priority climate financing activities and investments.

94. Project will establish GIS-based IFRIS for resource assessment, monitoring and forecasting. The information system will include the national forest and rangeland inventories, national restoration (afforestation) plan, deforestation maps, soil maps, biodiversity inventories, and a Measurement, Reporting and Verification (MRV) system. The system will have improved forests and rangelands data and information.

IMPLEMENTATION

95. The Kyrgyz Government established the Climate Change Coordination Commission (CCCC), which is chaired by the First Vice Prime Minister of the Kyrgyz Republic, with the Director of the SAEPF as the Deputy Chair. The CCCC ensures multi-sector coordination of all activities in the Kyrgyz Republic related to climate change, and is comprised of the heads of all key ministries and divisions, and representatives of the civil, academic and business sectors. By establishing the CCCC at the level where it has convening power, the Kyrgyz Government intends to make climate change an intrinsic part of economic development. The Commission is already operational and has a mandate to coordinate climate change activities across sectors and projects in Kyrgyzstan. It also will be responsible for operation of the Green Climate Fund. This Commission will take overall responsibility for the supervision of CS-FOR Project's implementation and will coordinate all implementing agencies.

96. FAO will be the implementing agency jointly with the SAEPF and MAFIM responsible for undertaking specific activities under the Component 1. A lack of technical expertise in the area of climate change and adaptive NR management is one of the key issues in the Kyrgyz Republic. CS-FOR will attract international technical experts to support the introduction of an integrated approach to the forest and pasture ecosystems in policy and legal reforms. The Project also will set up Expert Groups (local and international experts in governance of NR, GIS, legislation and community engagement) with small teams in the pilot areas to collect, document and feed evidence into the policy and regulatory framework.

Risks and Mitigation

97. This is a project with substantial risks, but with the potential to produce large and sustained benefits to Kyrgyz Republic over the long term. The CS-FOR will face inherent capacity challenges and coordination commitment of trying to implement a multi-sectoral participatory program in a highly sectoral and centralized Government context.

Risks	Risk assessment	Mitigation measures
Lack of inter-ministerial coordination between the	High	- A National Platform will formally be set up chaired by the Vice Prime Minister to ensure inter

SAEPF, MAFIM, MES, and SALGSIR and coordination among local self-government bodies, <i>leskhoz</i> es and PUUs in implementation of reforms		ministerial coordination and cooperation - Indicators for the CS-FOR are aligned with the implementation of the State Programme “Forty Steps”, Concept of Forestry Development 2040, Pasture Management Development Strategy 2040
Weak capacities in implementing agencies	High	CS-FOR will support intensive capacity building in implementing agencies, including educational and research groups, and participating NGOs
Changes in the Government’s political vision such as the decentralization of resource management with high change in the highest decision making positions	High	Project has been prepared in close dialogue with the Government and stakeholders to ensure broad commitment Engagement of technical staff of relevant ministries and stakeholders on the ground in the preparation and implementation to ensure buy-in Project will support a communications campaign to disseminate results of the studies, to raise public awareness on climate change risks and to ensure wide political support
Vested interests and distorted incentives, petty corruption lead to resistance to changes	High	Social mobilization process in target communities and strong participatory approach in implementation of all activities to ensure transparency and accountability Communication and awareness campaign is broad and active Clear project implementation benchmarks established

ANNEX 1: INSTITUTIONAL SWOT ANALYSIS

Key institution	Current role	Strengths	Weaknesses	Opportunities	Threats
SAEPF	The major functions of the SAPEF in terms of forests protection and management are to develop policy, elaborate National Action Plans, approve leskhozoes' NAP and annual plans, monitoring of activities of leskhozoes Overseeing state control of the implementation of legislation, protection, and use of natural resources	Has vision of the forestry sector development and has monitoring and compliance enforcement power;	<ul style="list-style-type: none"> - Understaffed, underfinanced; - Has limited capacities - Low Government priority to environmental protection and forestry 	<ul style="list-style-type: none"> - SAEPF can play key role in development of standards of sustainable use and their enforcement - Lezkhoz management reforms are underway supported by the WB Project 	<ul style="list-style-type: none"> - High turnover of management and staff can lead to change in vision and forestry development roadmap; - Low budgetary support undermines maintenance of capacity and facilities
Leskhoz	Develop five year NAPs and annual plans Implement management of forestry on the ground, allocates leases and use rights, monitors implementation of lease and use terms, collects fees;	<ul style="list-style-type: none"> - Have understanding of forest resources; - Have trained forest rangers; - 	<ul style="list-style-type: none"> - Weak capacities of the staff - Limited number of staff to undertake planning and management of forest - Management often political nominees by the regional authorities - High turnover of management of leskhozoes - No access to new technologies, knowledge - Does not have full autonomy, since plans are formulated mostly at the national level, resource use payment rates are decided at the national level 	<ul style="list-style-type: none"> - Several leskhzoies started introduction of new methods in management of forests, such as PPP, outsourcing forestry activities to private sector and can serve as - Under pressure from local governments and communities to cooperate 	<ul style="list-style-type: none"> - Low interest and distorted incentives to engage communities and local government bodies in planning and management; - Lack of funds to undertake implementation of management plans - Lack of incentives to reform
PUUs and PCs	Have delegated functions from the local self government to	- Accountable to communities and local	- High turnover of the management of the PCs;	- Can be a starting point to set up joint	- Sustainability of the PUUs and PCs is under

	manage and improve pasture resources, elaborate PMP and annual use plans, allocate use rights, collect fees, monitor implementation of the PMP and report to the local government on results	government through election process, approval of PMP and annual plans and reports - Exist in almost every <i>aiyl aimak</i> - Have growing trust among population on management of resources;	- Weak capacity in technical issues of pasture management; - Have insufficient support from the Government	forest-rangeland management groups to link and harmonize pasture management plans; - Can lobby interests of the livestock owners and communities with leskhoz	question with end of the IFAD and WB supported projects
MAFIM	-Assigned as authorized body for management of pasture resources on behalf of the Government Has function of monitoring of pasture conditions	- Has high interest and commitment to advance decentralization of pasture management reforms	- Unclear role in current system regarding management of implementation of use of pastures with lack of coordination between its departments- GIPROZEM responsible for monitoring of pasture conditions and DPLF responsible for management of pastures. - - Up to date MAFIM has not been involved in monitoring of implementation of the pasture plans and enforcement of environmental standards - has limited number of people at the regional level and no on district and aiyl aimak level	- Should play a greater role in establishing standards of sustainable use of pastures and their enforcement - Provide technical support to the PUUs and local government There are two programmes in the MAFIM supported by the IFAD and WB on pasture management improvement	- Lack of clear government vision on responsibilities related to management of pastures
Local government bodies (aiyl okmotu and aiyl kenesh)	Responsible for management of municipal forests and pastures, in many cases delegated function of pasture management to the PUUs and PCs	- Accountable to local communities - Interested to support economic development and poverty reduction of	- Lack of technical staff and resources - High turnover of heads of local government bodies -	- Should be engaged in management of local resources - Can support bargaining power of	- Political pressures from vested interests - Low understanding and interest in environmental

		constituent communities		communities with leskhozoes	protection and climate change
Users associations (Kyrgyz Association of Forest and Land Users, Kyrgyz Association of Pasture Users Unions)	- Have mandates to protect interest of resources users, to lobby their interests and provide different services	- Have good understanding of issues in existing tenure arrangements, constraints of the sector and users' interests and needs in forestry-rangeland ecosystem management - Have outreach to users and users' groups on the ground	- Insufficient capacity due to lack of funding,	- Should be engaged in various project activities working with communities on the ground, representing and lobbying interests of users at the national level	- high dependency on donor projects' mandates and tasks

Annex 2. Major laws and legal acts, regulating management and use of pastures and forest

#	Name of Regulations and Legal Acts (RLA)	Date of enactment	Brief description of RLA and norms, regulating management and use of pastures
I. The Constitution of the Kyrgyz Republic			
	The Constitution of the Kyrgyz Republic	It was adopted on a referendum (nationwide vote) in June 27, 2010	Pastures are an exclusive property of the Kyrgyz Republic (article 12). Authority and responsibilities on pastures could be delegated to local self-government bodies with transfer of technical, financial and other means, based on law or agreement. Local government bodies are accountable to State bodies (article 113).
II. Codes of the Kyrgyz Republic			
1	Civil Code of the Kyrgyz Republic	May 8, 1996 #15, part I January 5, 1998 #1, part II	Civil Code of the Kyrgyz Republic states that the land property rights or land use rights are applied to the surface (soil) layer located within the boundaries of the land plot, if other is not determined by law (art.233-2). The same article states that the owner of the land plot or land user has rights to use everything that is situated on such plot or under surface layer of such plot, if other is not determined by Law on «Subsoils» or do not violate rights of other people.
2	Land Code of the Kyrgyz Republic	June 2, 1999 #45	Pastures cannot be transferred to private property or cannot be leased (art.4.p.4). Payment for land is made as a payment for land use lease, except for pastures (art.8.p.2). The competence of executive-administrative body of local self-government of ayil aimaks includes management, allocation and provision of pastures (art.13.p.2). Taxation of pasture users is carried out in accordance with tax legislation of the Kyrgyz Republic (art.18.p.6). Representative bodies of local self-government, taking into account the optimal load per unit of pasture area, infrastructure, as well as its productivity and remoteness, determine the amount of payment for pasture user based on livestock head (art.18.p.7) The competence of the Government of the Kyrgyz Republic includes the transfer of more valuable agricultural lands (arable land, perennial plantations, deposits, cultivated grasslands, hayfields and pasturelands of radical improvement) to other less valuable types of land or other category of land (art. 20.p.12) Less productive agricultural lands, except for pastures, can be granted to citizens of the Kyrgyz Republic in ownership by authorized body without compensation for cultivation and conducting agricultural activities (art.32.2.)

			Most valuable types of agricultural lands are arable and dry lands, land deposits, perennial plantations, cultivated grasslands, hayfields and pasturelands of radical improvement (art.74.p.2.).
3	Tax Code of the Kyrgyz Republic	October 17, 2008 #230	Tax Code of the Kyrgyz Republic determines main principles of taxation of pasturelands. Tax Code norms reflect collection of land taxes from pasturelands at average rates by rayon (art. 337). Current tax legislation of the Kyrgyz Republic does not exempt Pasture Users Unions from payment of main types of taxes, which are paid while conducting their economic activities.
4	Customs Code of the Kyrgyz Republic	July 12, 2004 #87	According to the Law of the Kyrgyz Republic "On Amendments to the Customs Code of the Kyrgyz Republic" dated July 22, 2011 No. 124, agricultural animals are included a list of goods subject to customs clearance and customs control in accordance with the procedure and on the terms, stipulated by the Customs Code of the Kyrgyz Republic (art.9.p 38).
5	Code of Administrative Liability of the Kyrgyz Republic	August 4, 19998 #114	Based on an art.193 of Code of Administrative Liability (as amended by Law of December 16, 2011 No. 239) "violation of the tenure regime, established according to community pasture management and use plan, which was adopted and entered into force in accordance with the established procedure, shall entail the imposition of an administrative fine to the civilians – from two to five, to the public individual – from five to one ten of special rate".
III. Laws of the Kyrgyz Republic			
1	Law of the Kyrgyz Republic on "Management of Agricultural Lands"	January 11, 2001 #4	Law on Management of Agricultural Lands fixes the provision of the Land Code that pasturelands are owned by the State and the article 21 of the Law stipulates that pasturelands be used in accordance with Law of the Kyrgyz Republic "On Pastures".
2	Law of the Kyrgyz Republic on "Pastures".	January 26, 2009 #30	The Law of the Kyrgyz Republic "On Pastures" defines the basic principles of legal regulation of pasturelands. The legal norms of the law reflect fundamentally different approach in the use of pasturelands with the main objective of ensuring sustainable and efficient management of pastures and pasture resources. The Law of the Kyrgyz Republic "On Pastures" confirms the norms of the Land Code on land rights that pasture management, use and improvement activities are regulated by the Land Code of the Kyrgyz Republic and Law on Pastures, as well as other regulatory legal acts of the Kyrgyz Republic.

3	Law of the Kyrgyz Republic on "Local Self-Government"	July 15, 2011 #101	<p>Article 20 of the Law is linked to article 113 of the Constitution of the Kyrgyz Republic, which states that local government bodies, including those who are responsible for management and control of pastures, may have a state authority with transfer of necessary material and financial resources needed to implement their responsibilities.</p> <p>In turn, Law provides the possibility of transfer of certain issues of local importance to Territorial and Public Self-Government bodies based on agreement (art.56), which is also reflected in the Law "On Pastures". Accordingly, the Law reflects that various forms of Territorial and Public Self-Government acquire their status starting from the moment of their registration in the local kenesh/council (art.55). It is also determined that the Territorial and Public Self-Government has rights to acquire the status of a legal entity in the manner established by the legislation of the Kyrgyz Republic (art.55).</p> <p>The law states all types of Territorial and Public Self-Government is accountable in front of meetings of citizens, who have elected them and registered in local kenesh/council (art.55).</p>
4	Law of the Kyrgyz Republic on "Special Status of Transboundary Areas of the Kyrgyz Republic and their development"	July 26, 2011 #145	<p>Priority activity of the state bodies and bodies of local self-government in the field of development of transboundary areas of Kyrgyz Republic, which have a special status, includes:</p> <ul style="list-style-type: none"> - use of land plots, improvement and development of infrastructure of some transboundary areas, which have a special status ; - provide protection and rational use of natural resources of some transboundary areas, which have a special status (art.4).
IV. Decrees of the President of the Kyrgyz Republic			
1	Decree of the President of the Kyrgyz Republic on "National Strategy for Sustainable Development for 2013-2017"	January 21, 2013 #11	<p>For enhancement of management of state pastures it will be used the mechanism, which is based on principle of rational balance of economic return from pasture use for communities and prevent pasture degradation. At the same time, the most important tool for increasing the efficiency of pasture management will be the introduction of modern technologies into the practice of management and monitoring of pasturelands (p.10.1).</p>
V. Regulations and Legal Acts (RLA) of the Kyrgyz Republic			
1	Resolution of Government of the Kyrgyz Republic on "Measures of implementation of Law on "Pastures"	June 19, 2009 #386	<p>In order to implement the Law "On pastures" (No. 30 of January 26, 2009), according to Resolution #386 the Government of the Kyrgyz Republic approved regulatory legal acts, allowing implementation of the new mechanism for regulation of legal relationships in pasture use process:</p> <ul style="list-style-type: none"> • Regulations on the State Commission for establishment of pasture borders; • Regulation on regional working groups and local commissions (district) on establishment of pasture borders; • A standard regulation on the procedure for determination of fees for pasture use.

			Government Resolution has approved also the standard form of a pasture ticket; an order was given to the heads of local state administrations to set up local commissions on establishing external borders of pastures within one month. It is determined additionally that pasture areas, previously provided until June 1999 for long-term use to former collective and state farms of districts and regions of the Kyrgyz Republic and located in the administrative boundaries of other districts and regions, remain at the disposal of the same districts and regions until the completion of activities on determination of pasture borders.
2	Resolution of Government of the Kyrgyz Republic "On approval of the Program for Development of pastures for 2012-2015 and the Action Plan for Implementation of the Program"	February 10, 2012 #89	The program determines priority directions for development of pastures of Kyrgyz Republic
	Resolution of Government of the Kyrgyz Republic "On procedures of provision of rights to use pasture resources for other purposes, not related to grazing"	September 13, 2013 #515	The Resolution was developed to ensure mechanisms of application of norm, determined in Law on Pastures, and to ensure access of all types of users to pastures and pasture resources.
VI. Sectoral legislation natural resources			
1	Law of the Kyrgyz Republic on "Environmental protection"	June 16, 1999 #53	<p>In accordance with the Law (art.10) there are two types of use of natural resources (NR) in the Kyrgyz Republic:</p> <p><u>General use of NR</u> does not require any special permission; it is carried out by citizens based on the human rights (use of atmospheric air, water for drinking, medical and recreational purposes, etc.).</p> <p><u>The special use of NR</u> is based on types of resources; divided into land use, use of subsoils, forest use, water use, use of plants and animals, use of atmospheric air (art. 11).</p> <p>The procedures and conditions for use of natural resources are established by the abovementioned Law, sectoral legislation on natural resources and other normative legal acts of the Kyrgyz Republic (art.11).</p>
2	Law of the Kyrgyz Republic on "Fauna"	June 17, 1999 #59	<p>In accordance with Article 30 of this Law of the Kyrgyz Republic "On Fauna", there are two types of use of objects of fauna by legal and physical persons:</p> <p><u>General use</u> of objects of fauna without withdrawal of animal from the natural environment is free and does not require any special permission.</p> <p><u>Special use</u> of objects of the fauna including withdrawal of animals from the natural environment (extraction, collection, etc.) is based on payments and license, provided by state bodies, responsible for protection, use and</p>

			<p>reproduction of objects of fauna.</p> <p>According to Article 28 of the Law, users of objects of fauna are considered to be legal entities and individuals entitled with use rights based on contract and/or license (special permit), agreed and/or issued by the State Environmental Protection Agency of the Kyrgyz Republic.</p> <p>The right to use objects of fauna by foreign legal entities and individuals is granted according to procedures, established by the State Environmental Protection Agency of the Kyrgyz Republic.</p>
3	Law of the Kyrgyz Republic on "Flora Protection and Use"	June 20, 2001 #53	<p>According to the article 11 of the Law the rights to use objects of flora is based on the state act on the land use rights or on contract on lease of land or flora objects.</p> <p>Owners of the land and permanent land users are simultaneously users of plants growing on their lands.</p> <p>Transfer of objects of the flora for use purposes is carried out based exclusively on land allotment procedures.</p> <p>According to article 12 of the Law harvesting of wild fodder for livestock purposes, haying, and the feeding of caterpillars of silkworm can be carried out both in specially designated areas and at sites of other target appointments under special permits in compliance with the established norms.</p> <p>Individuals and legal entities can use vegetation for beekeeping purposes based on contracts with permanent users of land plots granted for these purposes.</p> <p>Individuals and legal entities that are users of natural hayfields and pastures are obliged to comply with the requirements for their protection, rational use and productivity increase in accordance with the aforementioned Law.</p> <p>Optimum load on various plant, as well as methods and terms of keeping livestock on plants are established by regulatory legal acts of the Government of the Kyrgyz Republic.</p> <p>Article 13 of the Law determines that individuals can participate (individually or collectively) in collection of wild medicinal and technical plants and products for food purposes based on contracts with main users of objects of flora who have right to collect plants.</p> <p>It is prohibited for individuals to collect for the purpose of personal consumption, for sale or processing of wild plants, which are listed in the list of narcotic plants approved by Government, as well as the parts, products and stubble residues of such plants, and wastes of natural narcotic-containing raw materials.</p> <p>Government allows harvesting and collection of such plants to legal entities according to established procedures.</p> <p>Harvesting and collection of wild medicinal and technical plant raw materials can be banned or restricted due to risk of possible harm to flora and fauna, as well as</p>

			<p>due to risk of harm to health of local population. It is prohibited to harvest and collect objects of flora listed in the Red Book of the Kyrgyz Republic.</p>
4	Law of the Kyrgyz Republic on "Subsoil"	August 9, 2012 #160	<p>In Accordance with the Law (art.3) the subsoil is an exclusive property of the Kyrgyz Republic and used as a basis of life and activities of Kyrgyz people, and under special protection of the State. Authority of the state bodies regulating use of subsoil: 1. Government of the Kyrgyz Republic <ul style="list-style-type: none"> - ensures implementation and enhancement of state policy and legislation in subsoil use sector; - determines sires of subsoil and deposits, intended to satisfy needs of the state in strategic types of mineral materials; - determines the list of subsoil sites deposits with strategic importance; - approves the list of objects of the state importance, subject for bidding; - exercises other power and responsibilities in accordance with the Law (art.5). 2.Responsibilities of the authorized state body on development of the state policy on use of subsoil: <ul style="list-style-type: none"> - develops and introduce for approval of the Government the state policy on use of subsoil; - exercises other responsibilities (art.6). 3. Responsibilities of the authorized state body on implementation of the state policy on use of subsoil: <ul style="list-style-type: none"> - implements the state policy on use of subsoils; - organizes the system for provision of use rights of subsoil and land plots of the state reserve fund of lands with deposits of mineral resources; - supervises the protection of subsoil within the boundaries of geological, mountain and land allotments; - carries out state registration of subsoil use rights in cases provided for by the Law; - develops technical regulations and rules on subsoil use; - exercises control over the use and protection of mineral resources during the geological investigations and industrial development of subsoil; - exercises other responsibilities in accordance with the Law (art.7). 4. Responsibilities of the authorized state body on ecological and technical safety: <ul style="list-style-type: none"> - carries out the state control over implementation of legislation on environmental protection and industrial safety during the geological investigations and industrial development of subsoil: </p>

			<ul style="list-style-type: none"> - carries out the state supervision over maintenance of ecological and industrial safety within the borders of geological, mountain and land allotments; - exercises other responsibilities in accordance with the Law (art.8) <p>5. Responsibilities of the local state administration and local self-government bodies:</p> <ul style="list-style-type: none"> - provide land allotment and rights of temporary use of land plots during the period, determined in the licence, according to the Law and Land Code; -conduct work with local population on prevention of illegal activities related to use of subsoil; - exercises other responsibilities in accordance with the Law and legislation of the Kyrgyz Republic. <p>Users of subsoil can be legal entities and individuals, as well as foreign individuals and legal entities, registered in accordance with the Kyrgyz legislation (art.21).</p> <p>Subsoil use rights can be provided based on tenders, auctions and direct negotiations.</p> <p>Tenders are conducted on objects of the state importance based on government resolution. Auctions are conducted on deposits, potential sites with mineral resources based on resolution of the authorized state body, responsible for implementation of the state policy on subsoil use. As a result of direct negotiations subsoil can be provided based on:</p> <ul style="list-style-type: none"> - deposits and potential sites with mineral resources not listed in the List exhibited to auction; - deposits and potential sites not acquired after two conducted auctions; - on subsoil plot not related to geological investigations and development of deposits of mineral resources (art. 23) <p>All types of subsoil use rights can be licenced excluding:</p> <ol style="list-style-type: none"> 1) provision of subsoil use rights based on concessional agreement; 2) provision of subsoil use rights based on agreement on sharing of production; 3) state registration. <p>Land allotment and temporary rights of use of the plots, not included in state reserve of subsoil and not in private property, but important for infrastructural purposes, roads, industrial squares, electricity and other infrastructure, can be provided by authorised body based on licence.</p>
5	Law of the Kyrgyz Republic on "Tourism"	March 25, 1999 #34	The relationships between the subjects of tourist activities and tourists are based on agreements (contracts), which include the subject of tourist trip, the quantity and quality of services provided, cost of services, terms and procedures for provision of services, the specific amount of financial responsibility of the parties for violation of the agreed conditions (art.4).

6	Law of the Kyrgyz Republic on "Specially protected natural territories"	May 3, 2011 #18	<p>Protected areas are divided into the following categories based on their use purposes, protection regimes of natural resources and objects in accordance with international standards and classifications, approved by International Union for Environmental Protection:</p> <ul style="list-style-type: none"> - state natural reserves; - state natural parks; - state natural zakazniks; - state natural sanctuaries; - state botanic gardens, dendrology and zoological parks; - biospheric territories/reservoirs; - transboundary specially protected territories. <p>With a view of maintenance of an appropriate nature protection regime of specially protected natural territories, their security zones can be established: main or reserve (core zone), buffer zone, protected zone and other. Issues of zoning are solved simultaneously while establishing the category of specially protected territory based on scientifically justified recommendations (art.5). Specially protected natural territories can be used for development of ecological tourism, engagement of local population in forming of tourist infrastructure and ensuring its rational functioning, and also for informing about natural and historical-cultural sites of the local areas (art.8).</p>
7	Law of the Kyrgyz Republic on "Hunting"	March 13, 2014 #41	The Law regulates relations in the field of protection, reproduction and use of hunting resources and sites of their habitat, arising during the hunting activities.
VII. Normative acts			
1	Agreement on cooperation between the Ministry of Agriculture and Melioration of the Kyrgyz Republic and the State Agency for Environmental Protection and Forestry under the Government of the Kyrgyz Republic	April 11, 2013	The parties that have signed the Agreement set the objective to promote the development of the sustainable, effective, rational use of pasturelands of the State Forestry Fund and the pasturelands of the Pasture Users Association of the Kyrgyz Republic.

ANNEX 3. Donor Initiatives in Forestry and Pasture Management and Improvement						
Project Name	Amount (grant/cr edit)	Donor(s)	Implementing Agency/Partner	Start-End Dates	Geographic Coverage	Main Focus and Activities
Integrated Forest Ecosystem Management Project	US\$ 16.11 million	GEF; The World Bank	State Agency on Environment Protection and Forestry of the Kyrgyz Republic	2017-2021	14 leskhozoes in 7 districts	The project development objective is to strengthen the capacity of government institutions and communities to improve sustainable forest ecosystem management through investments in management planning, ecosystem restoration, and infrastructure. It aims to support an ecosystem-based approach to the improved management of the area controlled by the leskhozoes including forested lands, pasture, and unproductive or marginal lands. This will be done through support for institutional reform and capacity building, the introduction of integrated natural resource management planning at the leskhoz level and support for the implementation of these plans in pilot areas.
Conservation of Globally Important Biodiversity and Associated Land and Forest Resources of Western Tian Shan Forest Mountain Ecosystems to Support Sustainable Livelihoods	US\$ 28.6 million	GEF; UNDP	State Agency on Environment Protection and Forestry of the Kyrgyz Republic	2017-2021	Toktogul and Toguz-Toro districts	The project's focus is a landscape conservation and management approach, understanding that not only Key Biodiversity Areas, but also buffer zones, corridors and sustainable forest and pasture management in wider landscape are the key to the conservation of biodiversity, and the sustainable use of forest and land resources. There are three components: -Component 1 will be focused on conservation and sustainable

						<p>management of Key Biodiversity Areas within landscapes supporting the national protected areas network for increased representation of vulnerable species habitat, including snow leopards, in the protected areas system habitat, and avoided loss of High Conservation Value Forests through official recognition;</p> <p>-Component 2 will focus on ecosystem resilience and habitat connectivity in Western Tian Shan enhancement by regulating land and forest use in buffer zones and corridors and supporting sustainable livelihoods;</p> <p>-Component 3 will aim to strengthen national capacities for snow leopard conservation, promoting Kyrgyz regional and global cooperation, and setting the scene for up-scaling.</p>
Sustainable and Climate Sensitive Land Use for Economic Development in Central Asia		GIZ, German Federal Ministry for Economic Cooperation and Development	State Agency on Environment Protection and Forestry of the Kyrgyz Republic; NGOs	2016-2019	Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan	<p>The goal of the program is to adopt integrated, economically and ecologically sustainable forms of land use, taking climate change into account in Central Asia. In Kyrgyzstan, pilot implementation of the forest sector reforms began in June 2015. Six forestry enterprises are now testing innovative and adapted mechanisms for decentralised, participatory management, and the activities are coordinated at the national level by the Coordination and Consultative Council, which includes representatives of governmental</p>

						and international organisations and civil society.
Ecosystem-based Adaptation to Climate Change in High Mountainous Regions of Central Asia		GIZ, German Federal Ministry for Economic Cooperation and Development	State Agency on Environment Protection and Forestry of the Kyrgyz Republic; NGOs	2015 – 2019	Kazakhstan, Kyrgyzstan, Tajikistan	It aims to introduce an ecosystem-based approach to climate adaptation, in which people continue to use natural resources to secure their livelihoods without harming the environment. This will ensure that ecosystems can provide the services important to people's survival, in the long term. The objective of the project is to test ecosystem-based adaptation and other climate adaptation strategies and to integrate them into national policies in Kazakhstan, Kyrgyzstan and Tajikistan. The project is intended to increase a common understanding regarding the advantages of the ecosystem-based approach to adaptation.
Biodiversity Conservation and Poverty Reduction through Community-Based Management of Walnut Forests and Pastures in Southern Kyrgyzstan	US \$6.5 million	GIZ, German Federal Ministry for Economic Cooperation and Development	State Agency on Environment Protection and Forestry of the Kyrgyz Republic; Ministry of Agriculture and Melioration of the Kyrgyz – Republic	2014-2018	Jalal-Abad region	The aim of the project is to introduce a modern and rational model of sustainable forest and pasture management in southern Kyrgyzstan in order to promote the conservation of biodiversity, support adaptation to climate change and increase local incomes. The first action is to support state agencies and local communities (forest enterprises, pasture committees, local self-government, etc.) to develop a joint management model for natural resources, with active involvement of the forest and pasture users. The second field of action strives to increase the forested area by planting forests

						with a mixture of walnut and fruit trees, which are well-adapted to climate change. The third field of action focuses on the improvement of livelihoods for the local population.
Strengthening of Livelihoods through Climate Change Adaptation in Kyrgyzstan and Tajikistan		Energy and Climate Fund; GIZ, German Federal Ministry for Economic Cooperation and Development	Ministry of Agriculture and Melioration of the Kyrgyz Republic; Ministry of Emergency Situations of the Kyrgyz Republic	2014 – 2018	Batken - Kyrgyzstan, Tajikistan,	The goal of the project is to strengthen the livelihoods of vulnerable rural communities in Kyrgyzstan and Tajikistan through climate change adaptation measures. The project supports adaptation measures in agriculture, while strengthening people's resilience in the face of severe natural events. Measures to support agriculture include the introduction of water-saving irrigation methods and water-efficient crops, the use of quality seed and the rehabilitation of water reservoirs. The disaster risk reduction measures include the construction of dams and riverbank reinforcement and, in particular, erosion control.
Sustainable Management of Mountainous Forest and Land Resources Under Climate Change Conditions	US\$ 5,5 million	GEF; FAO (implementing partner)	State Agency on Environment Protection and Forestry of the Kyrgyz Republic	2014-2018	Chui, Issyk-Kul, Naryn (including Ak-Talaa leskhoz), Jalalabat (including Kara-Alma leskhoz), Osh regions	Project Development Objective: to contribute to the sustainable management and enhanced productivity of mountainous silvo-agro-pastoral ecosystems and to improved productivity and mountain livelihoods in the Kyrgyz Republic
Pasture and Livestock Management Improvement Project	US\$ 15 million	The World Bank	Ministry of Agriculture and Melioration of	2014-2019	In all regions	The development objective of the project is to improve community based pasture and livestock management in the project area.

			the Kyrgyz Republic; ARIS			<p>The project comprises of three components.</p> <ul style="list-style-type: none"> -The first component, community based pasture management will contribute to the project objectives through improved pasture governance and technical capacity for pasture management. -The second component, community based animal health and husbandry services will contribute to the project objectives -The third component, project management will finance project management activities of Ministry of Agriculture and Melioration Agricultural Projects Implementation Unit (APIU), and ARIS.
Livestock and Market Development Programme II	US\$ 39.5 million	IFAD	Ministry of Agriculture and Melioration of the Kyrgyz Republic	2013-2018	Batken, Jalal-abad and Osh districts	<p>This project aims to reduce poverty and enhance economic growth in pasture communities by improving livestock productivity and climate resilience – and thereby promoting equitable returns to livestock farmers.</p> <p>The project has three components:</p> <ol style="list-style-type: none"> 1.Community-based pasture management and vulnerability reduction, taking advantage of the conducive environment provided by the country's 2009 pasture law 2.Animal health and production services to establish an effective private veterinary system 3.Income diversification and market/value chain initiatives to support rural livelihoods and build socio-economic resilience by reducing the risk of income loss caused by climate change.

Livestock and Market Development Programme I	US\$ 25.9 million	IFAD	Ministry of Agriculture and Melioration of the Kyrgyz – Republic	2012-2017	Issyk-Kul and Naryn regions	<p>The programme objective is to generate livestock productivity gains in pilot districts, reflected in improved and equitable returns to livestock farmers. Components of the programme include:</p> <ol style="list-style-type: none"> 1.Community-based pasture management through a participatory planning approach focusing on pasture and livestock development 2.Livestock health and production services through support to private veterinary practitioners, and to the national health programme to combat major livestock diseases 3.Market and value-chain initiatives to raise the return achieved by livestock farmers from their dairy animals.
Improving the coverage and management effectiveness of Protected Areas in the Central Tian Shan Mountains	US\$ 950 000	GEF; UNDP	The State Agency on Environment Protection and Forestry of the Government of the Kyrgyz Republic,	2013-2017	Issyk-Kul region	<p>To improve the coverage and effectiveness of protected areas in the Central Tian Shan Mountains so as to expand threatened species representation in the national system. It is expected to achieve:</p> <ul style="list-style-type: none"> • Improvement the legislation on Protected Areas that defines procedures for the establishment, operation, and enforcement of PA buffer zones and wildlife corridors considering the responsibilities and interests of all stakeholders. • Identification of buffer zones to provide favorable conditions for the species diversity of flora and fauna and sustainable migration routes for large mammals, which is under state protection.

						<ul style="list-style-type: none"> • Development and implementation of the alternative livelihoods programme for local communities.
Strengthening the Capacity of Forest Conservation of the Kyrgyz Republic	US\$ 1 million	KOICA	State Agency on Environment Protection and Forestry of the Kyrgyz Republic	2011-2015	Chui and Jalalabat regions	The main goal of the project was to improve the livelihood of the community and preservation of the forests through strengthening the capacity of sapling cultivation and pest control management in Bishkek and Jalalabad areas.
Agricultural Investments and Services Project	US\$ 23.4 million	World Bank; IFAD; Swiss Development Corporation	Ministry of Agriculture and Melioration of the Kyrgyz Republic	2008-2013	475 rural communities in all regions	The principal objective of this project is to improve the institutional and infrastructure environment for farmers and herders, with a strong emphasis on the livestock sector. The aims are to increase the productivity of farmers, particularly livestock farmers, and reduce animal diseases that have an impact on public health, such as brucellosis.

Sustainable Mountain Pastures Management in the Suusamyr Valley	US\$ 1.95 million	GEF; UNDP	Ministry of Agriculture and Melioration of the Kyrgyz Republic, NGOs	2007-2012	Naryn region	The aim of the project was to reduce negative effects of grazing through cost effective pasture management mechanisms
Kyrgyz-Swiss Forestry Support Programme – KIRFOR	US\$ 15 million	Swiss Agency for Development and Cooperation SDC	Intercooperation	1995-2010	Issyk-Kul, Jalalabat and Osh regions	<p>The programme's goal was to support reforming the Kyrgyz forestry sector for a more social and productive oriented forest management, toward sustainability and biodiversity conservation. The program was based on 5 subsequent phases:</p> <p>Phase 1 (1995 – 1997): start-up phase, establishment of the Project Support Unit and the individual programme components' facilities;</p> <p>Phase 2 (1998 – 2000): consolidation of the working partnership between the programme and the involved partner agencies and stakeholders, initiation of the forestry sector reform process;</p> <p>Phase 3 (2001 – 2003): culmination of Swiss support, continuation of forestry sector reform and expansion of the programme to its full scope, including development of forest management planning instruments, promotion of downstream processing & marketing activities and involvement of the private sector, and collaborative forest management;</p>

						<p>Phase 4 (2004 – 2007) : consolidation phase, finalisation of the programme's achievements and handing over of activities to the Kyrgyz partners, gradual phasing out of external support;</p> <p>Phase 5 (2008 – 2010): extension of Phase 4 for achieving the ongoing, finalisation of the non-reached results and processes, capitalisation of experiences and termination of KIRFOR.</p>
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