IFAD
Investing in rural people

Introduction to Community Pasture Management Plans in Kyrgyzstan

Synthesis of the Country's rural pastoral development and lessons learned through IFAD-funded projects

Introduction to community pasture management plans in Kyrgyzstan

Synthesis of the country's rural pastoral development and lessons learned through IFAD-funded projects

Originator: Samir Bejaoui

Country Director for the Kyrgyz Republic and the Republic of Moldova

Near East, North Africa, Europe and Central Asia

s.bejaoui@ifad.org

October 2022

For further information, inquiries or requests for support, contact Samir Bejaoui, IFAD Country Director for the Kyrgyz Republic and the Republic of Moldova, s.bejaoui@ifad.org.

Cover photo: ©IFAD/APIU

Acknowledgements

This report was prepared by Emanuela Berti, Consultant, Knowledge Management and Communication Specialist, with contributions from Karim Sissoko, IFAD Country Programme Officer, and under the general supervision of Samir Bejaoui, IFAD Country Director for the Kyrgyz Republic and the Republic of Moldova for the Near East, North Africa, Europe and Central Asia Division.

The authors greatly appreciate the time and efforts of specialists in the Agricultural Projects Implementation Unit in Bishkek, Kyrgyzstan, who provided their expertise and knowledge on how community pasture management plans are developed, namely: Tamchybek Tuleev, Director; Irena Baitanaeva, Communication Officer; Kubanych Abdyrasulov, Knowledge Management Specialist; and Damira Isakulova, Monitoring and Evaluation Specialist and interpreter. Great appreciation also goes to Abdymalik Egemberdiev, Head of the Kyrgyz Jayity Association, for sharing his extensive knowledge. The report also benefited from the inputs of Antonio Rota, IFAD Global Technical Specialist, Livestock, and Harold Liversage, IFAD Global Technical Specialist, Land Tenure, both of whom peer reviewed the publication.

The report provides a synthesis of the experience gained in community pasture management and planning through phases I and II of the IFAD-funded Livestock and Market Development Programme, implemented from 2012 to 2021 in Kyrgyzstan. Its aim is to provide policymakers and governments with an overview of community pasture management and planning in the country's rural areas, and the steps needed to initiate and realize the process.

Contents

Acronyms

AO	Ayil Okmotu (Village Council)
AISP	Agricultural Investments and Services Project
APIU	Agricultural Projects Implementation Unit
ARIS	Community Development and Investment Agency
CO2	carbon dioxide
CPM	community pasture management
CPMPs	community pasture management plans
DAPUUs	district associations of pasture users' unions
GHG	greenhouse gas emissions
IAR	Impact Assessment Report
IFAD	International Fund for Agricultural Development
KSRLPI	Kyrgyz Research of Livestock and Pastures Institute
LMDP	Livestock and Market Development Project
PCs	pasture committees
PUUs	pasture users' unions

©IFAD / APIU

Introduction and historical context

Following independence from the Union of Soviet Socialist Republics (USSR) in 1991, Kyrgyzstan, a landlocked state in Central Asia with over half of its land classified as pasture, launched rural reforms primarily aimed at land privatization and the establishment of market-based farming. Foremost among these reforms was the dissolution of collective and state farms, and their privatization. As collective and state farms were dissolved during the transition to a market-oriented economy, their respective responsibilities were either terminated or transferred to other existing or newly formed state structures, including local government bodies, requiring the involvement of the rural communities.

These reforms did not lead to effective pasture management, as responsibility for pasture resources was split among different departments at the central, regional, district and village levels, leading to excessive disaggregation among the managing entities. Perhaps more fundamentally, the reforms did not sufficiently recognize and empower local herder groups in pasture management, or draw on traditional customary systems and practices. The lack of a

comprehensive policy for pasture management or inclusive administrative arrangements to implement such a policy constituted a major legislative shortfall. Under such circumstances, the system of regulated pasture use quickly disappeared. Informal land use rights rapidly prevailed over privatized land use rights; large numbers of villagers preferred to use pastures on a communal basis, which in many ways was better recognized under the former Soviet system, but was at odds with the new legislative framework. Pasture usage rapidly reverted to traditional methods, undermining the new land lease-based practices and policies that were being introduced by the Government. These traditional methods rarely involved sustainable measures such as herd mobility or pasture rotation.

Livestock production, which by the mid-1990s accounted for more than half of agriculture's share of GDP, was in decline and poverty was increasing among rural people dependent on livestock for their livelihoods. Herders employed by sheep farms in the country's remote and mountainous areas were particularly hard hit.

This management system created an unbalanced use of pasture resources, characterized by overgrazing of low- and mid-mountain pastures in the spring, summer and autumn, and suboptimal use of remote summer pastures. Transhumance was rare, leaving remote pastures increasingly in need of infrastructure interventions, such as the development of water management and irrigation systems. This rapidly led to the degradation of pasturelands, which in turn contributed to the occurrence of landslides and floods. The growing frequency and scale of extreme weather events was compounded by periods of droughts followed by heavy rains induced by climate change. Furthermore, poor dissemination of information about pasture legislation and planning procedures, pasture availability and use rights resulted in conflicts and disputes.

This is the backdrop against which IFAD made its first investment in the country in 1995, with the Sheep Development Project, which was cofinanced by the World Bank.

The project focused on transforming the sheep industry into an efficient and sustainable market-based production value chain by:

- increasing the profitability of sheep farming and wool production;
- privatizing several services provided to farmers; and
- supporting the improvement to the natural grazing resources management and conservation.

The project's principal objectives were to:

- "support breeding research activities and establish technical and management advisory services to train farmers in animal husbandry, rangeland management and marketing;
- organize sheep farmers into sheep producers' associations;
- develop a competitive marketing structure;
- promote privatization of veterinary services and brucellosis control, and strengthen the diagnostic and quarantine capabilities of state-run veterinary services; and
- develop improved pasture monitoring, evaluation and protection, and provide training in sustainable pasture management techniques to increase fodder quality and availability."[1]

> *"In 2009, the Law on Pastures of the Kyrgyz Republic was passed, categorizing all pastureland as a national treasure, never to be shifted to private ownership. All rights and authority to manage pastures were legally moved to the National Public Pasture Users' Association and local pasture committees – community organizations of herders. Pasture committees received basic training, with support from donor organizations, but the need for knowledge and skills in sustainable pasture management and monitoring continues to be great."*[2]

The project also supported the development of a private veterinary sector, which helped reduce the Government's animal health expenditures and increase its efficiency. Human cases of brucellosis began to decline after a vaccination trial was introduced for animals. Increased interest in artificial insemination and crossbreeding programmes was registered during the second phase of the Livestock and Market Development Project (LMDP II). This resulted in the introduction of new concepts of improved production linked to healthier animals and more productive breeds. Initiatives improved the quality of the stock and increased farmgate prices. The project also encouraged farmers to diversify their activities and production, broadening their market opportunities.

The project, along with international development agencies such as the World Bank, supported both government institutions and local authorities through training. This in turn led to the issuance of the first Pasture Law in 2009, amended in 2011.

[1] https://www.ifad.org/en/web/operations/-/project/1100000479

[2] IFAD, Kyrgyzstan Livestock and Market Development Programme, Project Completion Report, p. 4.

Insight into IFAD-funded projects

LMDP was a two-phase intervention jointly financed by IFAD and the Government of the Kyrgyz Republic. It was developed in parallel with a World Bank project with the same overall objective of improving community-based pasture and livestock management, namely the Pasture Management Improvement Project, which ran from 2014 to 2019.

> *"In particular, LMDP sought to strengthen further community-based management of collective pastures, advocating for government support to pasture users' unions (PUUs) for investments in pasture facilities and infrastructure. Furthermore, it was intended to pave the way in privatizing and modernizing veterinary services, including contracting private veterinarians to carry out state-mandated vaccination and disease control programmes, a first time initiative for the country."*[3]

The first phase started in 2013 and overlapped with the second phase in mid-2014, before reaching completion in 2020; phase II closed in March 2021. Both phases aimed to reduce poverty through improved livestock productivity and enhance climate resilience of pasture communities, as reflected in improved and equitable returns to livestock farmers.

LMDP MAJOR OUTCOMES	
PHASE I	**PHASE II**
1. More productive and accessible pasture areas, and increased supplementary feed available to community livestock	1. More productive and resilient pastures, and increased supplementary feed available to community livestock
2. Healthier livestock with lower levels of mortality	2. Healthier livestock with lower levels of mortality
3. Market partnerships in the milk value chain providing incentives for productivity increase	3. Increased incomes for communities particularly vulnerable to climate change

[3] Ibid., p. 5.

Steps towards building a national coordinated approach to community pasture management

The Pasture Law of the Kyrgyz Republic: Use rights are established and shared with users

The Pasture Law – adopted in January 2009 and amended in 2011 – created a legal basis for the development of a decentralized pasture management system at the community level, and for the development of the livestock sector in general.

The Pasture Law shifted the responsibility for managing pastures to new community-based users' organizations, and abandoned the earlier fragmented system of state authority. It promoted a participatory approach, which also included a bottom-up communication flow, leaving behind the former USSR concept of top-down farmer and pastoral organization.

Introduction of pasture users' unions and pasture committees, and the creation of the Kyrgyz Jayity Association

The most outstanding and effective result brought about by the law is attributable to the creation of formal local institutions, specifically the pasture users' unions and their executive bodies, the pasture committees (PCs). These both stand out for their proximity to the community, encouraging people's involvement in the decision-making processes. Also, conflicts over the use of pastures are mitigated to the extent possible, by adopting a more inclusive and participatory approach that leads to a broader and shared consensus on pasture management.

During LMDP's two phases, IFAD's support has been instrumental in creating and providing training for PUUs, PCs and for the preparation of the community pasture management plans (CPMPs). Training and IFAD's contribution to the dissemination of the law within rural and pastoral communities supported the reinforcement of community groups, PUUs and PCs, enabling them to take an active part in enforcement and promoting ownership of community-based pasture management**.** Under LMDP I and II, 454 PUUs were created at national level. During the implementation period, pasture users made tremendous progress in improving the condition of pastures and repairing cattle paths, bridges and other infrastructure. They also made every effort to solve other problems that were hindering the effective, efficient and fair use of pasture resources.

AT A GLANCE: ***WHAT IS CPM?***

Community-based pasture management is the process of compiling a pasture inventory and providing local authorities with information on soil, vegetation and available infrastructure, maps with borders and easements, as well as recommendations on the carrying capacity of pasture plots. This helps to make planning processes socially just and environmentally sustainable. Once maps are established, local authorities update them from time to time, depending on demand and plots' carrying capacities; this results in more accurate land tax charges, improved management plans and resolution of land use disputes.

The 2009 Law requested all pasture users to form PUUs, which elect their own executive bodies called PCs.[4] These bodies are legally authorized to govern the use of pastures, independent of state administrative control. To this effect, PCs have a number of rights, including to:

1. develop and implement a community pasture management plan and an annual pasture use plan;
2. issue certificates of pasture use rights (pasture tickets) and collect payments for pasture use;
3. resolve disputes among pasture users; and
4. carry out investments in pasture infrastructure and maintenance.

Also, as with the creation of PUUs at regional level, an association of pasture users at the country level and a National Association of Pasture Users of Kyrgyzstan were created. The national association – Kyrgyz Jayity – was legally registered as a voluntary association of legal entities in August 2015 under an initiative of six regional associations of PUUs. The association has more than 400 members, mainly the PUUs, but also 26 district associations of pasture users' unions (DAPUUs). Most of these DAPUUs and PUUs were created in the years following the adoption of the 2009 Law. The institutions are actively working to: (i) provide support to pasture users and PUUs; (ii) coordinate work with other stakeholders and state bodies; and (iii) eliminate overall issues of the PUUs at the district level (road and bridge rehabilitation). They provide training, consultation and technical support to each PUU member of the association.

The first convocation of the founders of the association adopted the Charter of the Association, which sets forth the legal mandate covering many activities. The charter aims to support the achievement of the goals and objectives of Kyrgyz Jayity, including the following activities:

[4] To avoid conflicts and streamline the use of pastures, the Government of Kyrgyzstan initiated a community-based pasture management system as an integrated component of the newly adopted Pasture Law. Other key elements of the law included: (i) the transfer of authority for pasture management from oblast and district administrations to local self-government at village level (i.e. *Ayil Okmotu* or the village council [AO]); (ii) the delegation of authority on pasture management from AO to PCs; and (iii) the demarcation and legal registration of the pasture boundaries to be managed by each PC.

- promotion of effective management and use of pastures and pasture resources and infrastructure;
- assistance in building the capacity of PUUs, DAPUUs and other interested parties who are members of the association; and
- representation and protection of the rights and legal interests of the members of the association.

One of the great merits of the association is that of championing the promotion and dissemination of CPMPs at national level.

AT A GLANCE: ***WHAT ARE PUUs and PCs?***

PUU is the community organization open to all pasture users who are local residents of the community, hold livestock or use land for all other livelihood purposes. Each rural municipality has its own PUU, which communicates with neighbouring PUUs. Fees are determined by each PUU, based on community and pastureland needs.

PCs represent the views of local users and use a participatory approach. As such, PCs receive capacity-building training in order to establish rules about pasture use in their villages, such as the timing of movement between summer and winter pastures, fees for pasture use, management of fertilizer and access to water. Each community tailors the plan to best suit their pastureland and breeders' needs, and informs PUUs on the community's needs. PCs do not have administrative powers but rather public managerial competencies.

Community plans for pasture management and their implementation

The main document of pasture management at the local community level is the community plan for pasture management and livestock development. PUUs are trained to develop and implement the CPMP, as well as to maintain the related infrastructure.

The CPMP is an approach that guides pasture users – PUU members, PCs and other pasture users' groups – in developing their pasture and livestock management action plans. The approach brings together stakeholders, including those who are involved at any stage of pasture management or who can facilitate or hinder the implementation of a pasture management plan. A users' manual was developed to strengthen and sustain the system of community-based pasture management.

> "Our PC was created in 2013, and we went through a lot of trainings, learned to develop joint plans, determine prices for services. Prices are approved at a general village meeting. All decisions are approved by the local committee".
>
> Focus group, Issyk-Kul oblast, Representative of the PC

The CPMP allows breeders to manage their land and resources, determine the type and amount of forage needed (dry and/or wet), allocate funds and determine the needs of both the individual herder and their communities. It is a flexible and dynamic approach for sustainable productivity that, if adopted by communities, allows for the scaling up of solutions and best practices by producers that safeguard the environment and mitigate the effects of climate change.

To make CPMP development more inclusive, quotas for female participation have been adopted. As of today, a reported 24 per cent of PC members are women.[5] Women bring a different perspective to the rural communities' debates, not only from a gender point of view,

[5] The Agricultural Projects Implementation Unit (APIU) provided additional data: "In the Kyrgyz Republic there are 454 PUU, its executive body is the Pasture Committee. The total number of members of Pasture Committees is 6,810 people, of which 1,634 or 24% are women. Currently, there are 7 women heads of Pasture Committees."

but also by contributing to tasks that are usually carried out by men. This helps move towards a realignment of the community's needs and increase overall resilience and sustainability.

During LMDP, training was organized by Kyrgyzstan's Community Development and Investment Agency (ARIS) in remote mountain villages. Under LMDP I, 338 training sessions were held, with the participation of 8,928 PUU members. Under LMDP II, over 1,100 training sessions on pasture management and monitoring; financial aspects; animal health and climate change adaptation were conducted by ARIS; reaching over 6,000 participants, including 565 women.

As a result of the capacity-building strategies put in place, and training sessions conducted within rural communities, CPMPs are now often created and implemented independently. This is a demonstration of the replicability of plans with minimum investment, once competencies have been acquired and knowledge shared at the community level.

A PC formally acts independently from the higher-level state offices; it has several official responsibilities, including settling disputes over pasture usage.

The committees' tasks also include developing and implementing community plans for pasture utilization, monitoring pasture conditions, issuing land use entitlement documents for farmers, establishing payment schedules, and collecting and managing fees.

The fees are reinvested into the maintenance of pastures and related infrastructure. They are known as *pastbisshnyi bilet* (pasture tickets) and are paid by herders.[6] The price is established by calculating the kind and amount of livestock possessed by the herders.

The herder's personal information is collected in the document. This includes the name, fees applied, place and indication of the surface area of pastureland, carrying capacity, the type and number of animals that may graze, and a spatiotemporal indication of their migration and transhumance patterns.

[6] Comments by APIU: "The carrying capacity norm for pasture is determined by government resolution as 1 animal unit (i.e. 1 head of cattle head or 5 small ruminant heads) per 1 hectare.

Voices from the field:

AGRICULTURAL PROJECTS IMPLEMETATION UNIT ON THE IMPACT OF THE PASTURE TICKET AND THE FEE COLLECTION MECHANISM[7]

"Pasture tickets were introduced by the 2009 Pasture Law and the basic provisions are approved by Government Decree N°316. With the support of the Agricultural Investments and Services Project, 5,000 pasture tickets were produced for the first time and distributed to the Jaiyt committees.[8] *Currently, there is no centralized production of pasture tickets. Each Jaiyt committee issues them independently. The pasture tickets are issued to people who use pastures for different purposes: for grazing livestock, beekeeping, organizing tourist areas […]. Everyone using the pastures must pay the Jaiyt committee for the service.*

Before the adoption of the Kyrgyz Law on Pastures, the amount of fees for pasture use was about 8 million SOMS. In 2020 it increased to 152 million SOMS […]. Most of the collected funds are used by Jaiyt committees to improve pastures and pasture infrastructure. According to the Budget Code of the Kyrgyz Republic, one third goes to the local budget and two thirds remain in the budget of the Jaiyt committee. The system of collecting money and using the collected funds to improve pasture resources has been in place for 13 years and has been generally successful. […] some successful aiyl okmotus (local municipalities) reinvest the funds that were sent to their budget from the Jaiyt committees back into the Jaiyt committees' budget.

The budgets of Jaiyt committees are executed at a rate of more than 90 per cent. Jaiyt committees prepare two plans, a one-year plan and a five-year plan, which are approved by the kenesh (parliament) of local deputies. These plans are accompanied by related budgets. The schedule for collecting funds for the use of pastures is defined in the regulations of the Government and this process has an established mechanism in the pasture users' associations. In some cases these funds are received later than scheduled. The delay in the receipt of funds for pasture use from users is due to reasons such as: insufficient work of pasture committees with pasture users, staff turnover in the PC, low salaries of PC staff members (chairperson, inspector, accountant), low solvency of livestock breeders, seasonal fluctuations in demand for livestock products, affecting the timeliness of payments for pasture use. In some Jaiyt committees, such as in Barrpy in Suzak District, Ulakhol in Ton District, Dobolu in Naryn District, Cholpon in Kochkor District and Voenno-Antonovsky in Sokuluk District, fundraising is very successful, with an overall budget reaching 3 million SOMS."

---

[7] All comments gathered in this thematic box have been provided by APIU.

[8] Jaiyt and Zhayit are both used as terms for pasture committees. Both are commonly used and their English translation may vary.

Steps for CPMP preparation

A total of 316 PUUs were involved in the LMDP over the entire implementation period. During LMDP II, a total of 189 CPMPs and Animal Health Plans were developed. These were accompanied by a detailed budget, microproject investment plans and a livestock development plan.

PUUs and PCs have a central role in generating and circulating information on pasturelands with other stakeholders and shareholders. CPMPs are de facto both operational tools for herders and knowledge management products. They represent the outcome of a consultative process entailing inclusive interactions between pasture users and community members who have recognized managerial and decisional authority.

The International Land Coalition (ILC) classifies these community plans for the management and use of pastures as tools providing strategic information such as:

1. “maps marking boundaries, pasture conditions and quality, areas excluded from use, protected areas, cattle pasturelands, watering places, and other significant infrastructural facilities;
2. optimum animal load;
3. plans for the development and reconstruction of pasture infrastructure;
4. annually updated management plans for pastureland use; and
5. plans for management and use of pasturelands for other purposes.

Medium-term plans for pastureland use and management include the improvement and rehabilitation of land and investment over a period of up to five years.”[9]

PUUs within this process need to interact with a variety of stakeholders, who may differ in terms of competencies and types of information produced.

[9] ILC, “Community Based Natural Resource Management in Kyrgyzstan. ILC’S Database of Good Practices”, p. 4.

The creation of a CPMP is a step-by-step process made up of six stages:

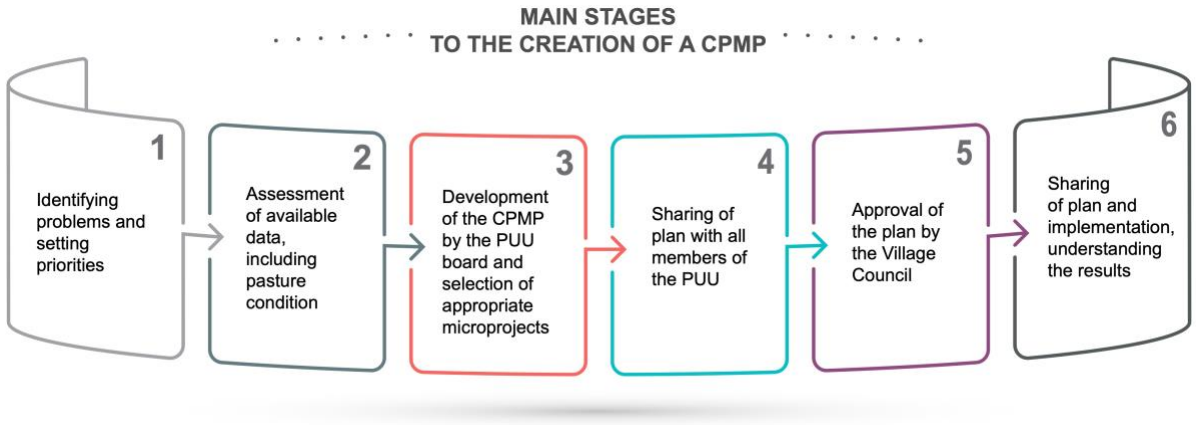

Figure 1 Main stages of CPMP creation

The section below provides step-by-step methodology for the preparation of a CPMP for PUUs and pasture users.

A detailed understanding of each stage of the CPMP's development allows for the replication of this operational model in various contexts. The whole process – from stage 1 to stage 6 – lasts an average of 2 to 3 months, and the final output is endorsement by the PUU constituency (which takes from 15 to 20 days).

Stage 1: Identifying problems and setting priorities

Who are the actors involved in the process? PCs, deputies of the Aiyl Kenesh, pasture users, large- and small-scale farmers, women, shepherds and community members who use pastures for other purposes.

Who begins the process? At this stage, the management of the PC sets of a focus group in each village of the municipality, with the participation of stakeholders. Individual focus groups are as follows: “shepherds and farmers”, “women”, and “local leaders and village activists”.

Who does what? Focus group participants identify problematic issues in the management and use of pastures, animal husbandry, and pasture infrastructure. Each group prioritizes problems and proposes solutions. The management of the PC records the results of the focus groups.

How does the process start? At general meetings of villages (village gathering), participants determine who will take part in the focus groups, and the time and place of the meeting.

What do they do in practice? Each group records problematic issues in the minutes of group meetings, with prioritization of problems. The priority issues of each group are discussed at village meetings with community members. A list of priorities is compiled at the municipality level. Possible ways of solving problems are also discussed at this stage.

The use of this methodology allows for a more in-depth study of the problems faced by individual members of the local community.

On average, one focus group takes up to 1.5 hours.

Stage 2: Assessment of available data, including pasture condition

Who are the actors involved in the process? Members of the PCs, employees of the Aiyl Okmotu (executive body of the municipality), state bodies responsible for natural resource management.

Who begins the process and who does what? The PC collects information and uses statistical data available at municipality level. The PC also collects data on pasture areas, using pasture monitoring and assessment methods to determine pasture capacity. The

municipality uses a special reporting form for data collection, which is aligned with the national statistical data. The PC creates a special group for monitoring the condition of pastures (monitoring group). This group coordinates pasture areas for annual monitoring and uses a crossed-line assessment method. In addition, the PC, if deemed necessary, can ask the Kyrgyz Livestock and Pastures Research Institute to conduct a detailed scientific analysis.

How do they begin the process? The PC collects data such as: the number of livestock, the area and capacity of the pasture, and the list of shepherds and other members who directly go to the pastures. The PC also creates a special group to monitor the condition of pastures (monitoring group).

What do they do in practice? Each year, the PC, together with the responsible persons of the Aiyl Okmotu, manually undertakes a census of farm animals. The PC also determines pasture areas for monitoring, and carries out annual monitoring and evaluation, with the results recorded in the assessment protocol. For monitoring and evaluation of the pasture conditions, a crossed-lines assessment method is used. The committee also draws on data at the municipal level, available from the municipality and state bodies. The data are kept in hard copy and digital form within the municipality. The PC has access to these data at any time.

As part of the IFAD and World Bank-funded projects, all members of the PC were trained in monitoring and evaluation of pastures, using a crossed-lines method. This method is very clear, accessible and easy for PC members to use.

The livestock count is mainly carried out in the winter season and takes from 30 to 45 days on average, based on the number of livestock in the municipality. Collection of data on rangelands takes about an hour for each monitoring and evaluation site. On average, there are 3-4 monitoring points in one pasture area.

Stage 3: Development of the CPMP by the PUU board and selection of appropriate microprojects

Who are the actors involved in the process? Members and management of the PCs, deputies of the Aiyl Kenesh, relevant employees of the Aiyl Okmotu and members of microproject groups.

Who begins the process and who does what? In order to develop a microproject, the PC manual allows the community members themselves to form a microproject group to address priority issues.

What do they do in practice? Designated persons at the PC level analyse the collected data and fill in the relevant section of the plan. The detailed manual for CPMP development and the form of the model plan are approved by the Order of the Ministry of Agriculture and shared with all PUUs. The microproject group determines an action plan to address the identified issues, taking into account the estimated costs. A microproject proposal form is filled out, or design and estimate documentation is prepared jointly with the relevant government agencies and technical specialists.

All members of the PC have been trained in the development of the CPMPs, and the management plan preparation within the framework of the implemented projects.

The preparation of a CPMP takes an average of 15 to 20 days. The preparation of a microproject proposal takes from 1 to 6 months, depending on the complexity of the activities included in the management plan (preparation of complex design and estimate documentation, especially when building infrastructure in difficult mountainous areas). The PC and the microproject group, which is organized by the members of the community, work jointly on this specific task.

Stage 4: Sharing of plan with all members of the PUU

Who are the actors involved in the process? All participants involved in the process, specifically: PCs, community members, pasture users, shepherds, livestock owners and farmers (large- and small-scale).

Who begins the process? The PC, together with the head of the Ayil Okmotu (village council [AO]), determines the time and place of meetings at the village level (each municipality consists of 1 to 20 villages. A total of 454 municipalities have PCs).

Who does what, how do they begin the process and what do they do in practice? At the village meeting, the leadership of the PC introduces the results and priorities of the focus groups, and presents a summary of the plan and activities to solve problems (microprojects).

At this stage, adjustments can be made to the CPMP, taking into account the recommendations and evolving priorities of the villagers.

The meeting lasts an average of 1.5 hours, depending on the number of villages in the municipality.

Some PCs use local social networks (WhatsApp groups) to spread information regarding the CPMP and other events.

Stage 5: Approval of the plan by the village council

Who are the actors involved in the process? PC, AO, Ayil Kenesh deputies.

Who begins the process, who does what and how do they begin the process? At the Ayil Kenesh session, the management of the PC presents the CPMP. The plan and activities are discussed and adjusted as needed. Also at this stage, the annual budget of the PC is discussed. The Ayil Kenesh approves the CPMP and the annual budget of the PUU.

This is a regulated process for CPMP approval for which session preparation, review and final approval takes up to 5 to 6 days.

Stage 6: Sharing of plan and implementation, analysing the results

Who are the actors involved in the process? PCs, AOs, pasture users, shepherds, other PUUs, government agencies and other stakeholders.

Who begins the process? The PC proceeds with the implementation of the CPMP in accordance with the implementation schedule.

Who does what and how does the process start? The PC provides pasture plots according to the approved tariff for pasture use (pasture use fee) and provides a pasture ticket.

Each pasture user, farmer or shepherd applies to the PC requesting that they be allocated a pasture plot for grazing livestock or for other purposes. The PC reviews the application and provides a grazing schedule indicating pasture areas, depending on the number of livestock (in animal unit equivalent).

Together with other stakeholders and government agencies, the PC monitors the implementation of the CPMP. This is done by counting the actual number of livestock in the pasture area in order to prevent overgrazing and exceeding the number of livestock from the amount stated on the pasture ticket.

Many remote summer pasture areas are used jointly by several PUUs. To coordinate actions, the PUU shares the plan with the district departments of agrarian development, DAPUUs and other PUUs that use the same summer pastures. To this end, they organize round tables, workshops, and joint visits to pastures in order to optimally distribute pasture areas for joint use.

The implementation of the CPMP encompasses the entire period of feeding farm animals on pasture plots, and follows on the schedule of the management plan.

Lessons learned

A number of lessons can be drawn from the results documented over the implementation of this model. Community pasture management has been influenced by various innovations and strategies adopted by the project, and its enhancement not only has dramatically restored pasturelands and communities, but has also set an example for the pastoralist sector across Central Asia.

Impacts and lessons for institutions, civil society and rural communities are grouped under the following headings: (a) policy and sustainability of community pasture management; (b) social impact; (c) innovation and technology; (d) human and animal health; and (e) climate mitigation and environmental dimensions.

A – Policy and sustainability of community pasture management

The success of the PUU-led pasture management model stemmed from the strong commitment of the Government to decentralize pasture management. This decentralization is at the heart of pastoral law reform since 2009, and has brought about a dramatic change in the country's agropastoral systems in recent decades. In large part, this change is the result of legislation that devolved authority and responsibility for the management of common-pool agropastoral resources to community-level pasture users' associations. Although the reform was realized in a different way to that originally planned by the decision makers, political will nonetheless paved the way for change, introducing the seeds of a democratic approval process on land use. The LMDP has influenced the management policy of public pasture resources.

The policy support provided by international development agencies and NGOs to the Government played an important role in the further development of laws, regulations and legal guides. Within the framework "of Kyrgyzstan's transformative legal reforms, IFAD, together with the World Bank and the Swiss Agency for Development and Cooperation, implemented the Agricultural Investments and Services Project (AISP) (2008-2014). Support to the implementation of the 2009 Pasture Law was a major component of the project. The AISP was designed to improve the institutional and infrastructural environment for farmers and herders, with a strong emphasis on the livestock sector. A specific component of the project was aimed at fostering integrated, equitable, and socially and environmentally sustainable pasture use and management by devolving responsibility to local actors and applying a community-based approach."[10]

IFAD's contribution focused on ensuring: fair and equitable access to pasture for poor people and other users; gender neutrality; and sustainable use of natural resources. The Pasture Management Policy has guided the development of other strategic documents by the Government of Kyrgyzstan in the agriculture sector, on such issues as animal identification, veterinary support for livestock owners, and facilitating dialogue on forest management issues. The institutional framework created by the Pasture Law, promulgated in 2009 and amended in 2011, was a real innovation in the Central Asia region for devolving governance of pasture

[10] Jepsen F., Rota A., Liversage H. and Hubert Chartier ML, "Legal reform, governance and natural resource management: the Kyrgyz pasture reform", Journal of Law and Rural Development Land Governance, p. 46.

resources to local communities. The involvement of local institutions enlarged the basic pasture management unit from individual to community scale, which has made a real contribution to pasture sustainability. This participatory approach, coupled with awareness campaigns about improving pasture management, has gained the loyalty and support of pasture users and further strengthened the reform process. Furthermore, the institutional assessments reported in the LMDP II project completion report[11] states "that most PUUs (98 per cent) are performing very satisfactorily, with pasture fee collection thought to be over 90 per cent. The development of PUUs during the project period and their increased capacity to manage their organizations, implement and maintain their projects, and collect fees provides solid evidence for sustainability after the project. The PUUs/PCs are in a good position to update their CPMPs and annual plans and to maintain infrastructure and equipment provided by the project."

B – Social impact

Communities' involvement through a 360° inclusive ownership approach was necessary to enhance the adoption of the reforms at national level.

The new Pasture Law was expected to establish community-initiated and -owned pasture governance systems. Even if the current PUU-led governance system does not fully reflect that view, there is no doubt that PUUs have taken ownership of the management system and are reinforcing their own community-defined practices and internal rules for the benefit of local stakeholders.

The modalities of social mobilization used by PCs and PUUs built up and supported PUUs that were formally identified in community-based institutions, with offices in local government buildings.

[11] IFAD, Kyrgyzstan Livestock and Market Development Programme Project Completion Report, main report and appendices, pp. 36.

Capacity development was crucial to enhancing ownership and integrating new skills; over 1,110 training sessions were conducted on pasture monitoring and management, and adaptation to climate change for over 6,000 participants – 565 of whom were women.

Overall, the inclusive social mobilization approach enhanced women's voice and decision-making role. This was achieved through their active participation in consultation on CPMP development and in leadership training. The tripling of women's membership quota in PCs registered over the 2016 to 2020 period, as a result of the introduction of the 30 per cent minimum quota for women, confirms that the project made significant achievements in the gender policy area. This is further validated by the 2020 Impact Assessment Report, which confirmed that the project increased women's representation in PCs and their involvement in animal husbandry (livestock-rearing), either alone or jointly with a male member; the report also showed that the project did not result in women's participation in other dimensions of decision-making.[12]

Gender empowerment needs further attention. The ongoing IFAD-funded Access to Markets Project is laying the ground for profound social change in some rural communities in the country, through the Gender Action Learning System and the Business Action Learning for Innovation training.

C – Technical innovations

The Kyrgyz Livestock and Pasture Research Institute and the PUUs jointly developed a pasture assessment tool. This involves farmers in accessing pastures, determining their status and taking informed decisions on how to manage them, through a mobile warning system.

Digitalized and delineated pasture plots have been encoded and geo-localized in Google Earth. This process has enabled the establishment of the baseline inventories of pasture plots, vegetation and numbers of livestock. Digitalization provides tools for monitoring changes resulting from more efficient grazing over the year. It also allows livestock owners and herders to participate in pasture management and planning processes, and to have their concerns heard. In addition, it enables more efficient use of scarce grazing resources, taking into

[12] IFAD, Kyrgyzstan Livestock and Market Development Programme II, Project Completion Report, main report and appendices, p. 24, para 168: Voice and decision making.

account the real carrying capacity of individual pasture plots. Pasture Condition Maps developed by the Climate Resilience Cluster of the Earth Observation for Sustainable Development Initiative – a partnership programme of the European Space Agency and IFAD, together with a project supported by the German Agency for International Cooperation – represent a valid tool to integrate pastoral systems with pasture management plans; it can be used in the strategic planning of mitigating measures for livestock mobility and herders' seasonal activities. It is also a valid tool for analysing natural resource needs linked to pastoral activities, such as efficient water management.

> "…We have been using remote pastures for the second year. Earlier we did not go to remote pastures at all, because of this, near and middle pastures degraded. Internal pastures need to rest for several years to recover".
>
> Focus group discussion with leaders of local communities, Naryn oblast

Digitalization of pasture information facilitates the implementation and monitoring of the CPMSs. Under LMDP, the pasture-boundary delineation process started with the digitalization of cartographic material in Naryn, Jeti-Oguz, Ak-Tala and At-Bashi districts. Fully digitalized cartographic material is now available to PCs. Today, updated data can be uploaded to a web platform. The early warning system and mobile app are fed with information from Hydromet in an automated manner. Various ministries are now sharing maps and information, thus building up knowledge at the local institutional level.

D – Human and animal health

Privatizing and modernizing veterinary services has been a significant achievement countrywide. Private veterinarians implementing state mandatory vaccinations and disease control programmes have become crucial to healthier and more efficient livestock development. This blended model has registered remarkable improvements in both human and animal health, specifically related to zoonotic diseases such as brucellosis and echinococcosis.

Vaccination campaigns and breeding programmes were introduced at the beginning of IFAD's joint investments with the World Bank in the mid-1990s. Today, under the ongoing Access to

Markets Project, IFAD is promoting the gradual takeover of vaccination campaigns by the livestock farmers themselves.

Under LMDP, livestock health progressively improved, thus decreasing the mortality rate. Initially this increased the volume of livestock, leading to overgrazing and disorganized pasture management. This aspect still requires the Government's and development partners' attention. Nevertheless, the 50 per cent increase in livestock numbers and the income generated as a result have led to a 25 percentage point reduction in poverty.[13]

The progressive development of CPMPs during LMDP I and II naturally led to PUUs communicating with each other about the numbers and types of grazing animals, resulting in more efficient pastureland management. Also, as fewer animals are now needed due to the higher survival rate, overgrazing is expected to decrease, thus impacting both pastures and greenhouse gas emissions (GHG). The "less is more" principle is naturally reducing disputes among livestock breeders.

Veterinarians are an integral part of the livestock-producer community, and the partnering of local institutions with private services has definitely been an excellent starting point in developing a more interconnected health system. The need for private veterinary services has been growing in rural areas with PUUs and PCs, as community veterinarians are nearing retirement age. The institutions have partnered with the private veterinary system, which is stepping up to meet the need for animal care in rural areas, as community veterinarians retire.

E - Climate and environmental mitigation measures and tools

It is important to reflect on and analyse how all the above elements impact the environment, specifically GHG/CO2 emissions. Three interlinking aspects are key to making the environmental impact of livestock and pasture management sustainable:

1. Improving pasture management contributes to carbon offset. Good practices to improve pasture health are rotational grazing on seasonal pastures, pasture resting, managing herd growth and the protecting water sources.

[13] Ibid., pp. 11.

2. Healthy animals contribute positively to the production of meat and milk. Healthier animals live longer and are productive for a longer period. This is a direct outcome of veterinary assistance and vaccination campaigns financed under the LMDP. When herders have healthier and more productive animals, they are encouraged to reduce the size of their herds, which has a direct impact on pasturelands.
3. Animal health is also the result of higher quality feed. Producing high-quality fodder locally can lower GHG emission levels. In general, it is recommended that low-quality hay be substituted with more nutritious feed such as sugar beet residues and maize silage. The feasibility of the latter has yet to be applied in the Kyrgyz context.

Shrub management is also important in pasture management. IFAD has financed a study with the Kyrgyz Science Institute of Livestock and Pastures to test the best techniques to deal with Caragana (*Caragana arborescens*), an invasive plant that reduces the productivity of pastures. Animals do not eat Caragana – and poor pasture quality means less fodder, which has a direct impact on animal health.

IFAD has financially supported research the Kyrgyz Research of Livestock and Pastures Institute to eradicate Caragana. The use of chemicals is forbidden by the Academy of Sciences of Kyrgyzstan due to the impact on the environment; mechanical methods to eradicate Caragana are preferred.

The production of quality fodder is important in addressing GHG emissions because better-quality feed leads to healthier animals, which in turn reduces the need to keep excessively large herds of livestock. More nutritious crops from locally grown food, rather than hay or imported feed, can reduce methane (CH4) emissions from enteric fermentation.

In order to increase feed production and ensure adequate stores for winter, PUU member farmers have identified the fodder varieties most suitable for growing. The selection included barley (Hordeum vulgare), lucerne (Medicago sativa spp.) and sainfoin (Onobrychis viciifolia). In this undertaking, PUUs have benefited from technical collaboration with the National Federation of Community Seed Funds. Thanks to the federation's support, more than 90 community seed funds were established in Batken, Jalalabad and Osh oblasts. A farmer-to-farmer distribution system for these funds was set up in PC areas across the country.

The way forward

The community-based pasture management model has registered success in addressing the conflictual pasture use management situation in Kyrgyzstan. The model is continually being improved and strengthened within the country. As best practice, the model has the merit of being exportable and implementable in similar contexts elsewhere, to offer a peaceful and sustainable pasture use management solution to livestock stakeholders. The two public agencies involved in the process – APIU and ARIS – are committed to further promoting this practice to ensure that it contributes to attaining the initial goal set by the Government in the 2009 Pasture Law.

The swiftness of the Government of Kyrgyzstan in finding a solution to the legislative gap left after enacting the Pasture Law in 2009, combined with the rapid implementation of the first CPMP by pastureland actors such as the Kyrgyz Jayity, proved to be a winning formula in laying the groundwork for adopting CPMPs at the national level.

Furthermore, community pasture management as a whole has laid the foundation for profound social changes, with a general shift towards a more inclusive rural and pastoral society. The process of CPMP design continues to be led by the communities; this instils ownership of the process and better adapts the plans to community needs. The plans reintroduced traditional management approaches originally presented by Kyrgyz Jayity, and these may have been a key element of the wide-scale success of the CPMPs.

The successful model of managing pastures through PUUs is a good, practical example with high potential for replication in other countries with similar backgrounds and constraints, including Kyrgyzstan's neighbouring states in Central Asia and the Caucasus region and beyond, to East Africa. PUUs are progressively becoming independent from external funding, yet many still require assistance to scale up services to their communities. Measures to guarantee long-term sustainability and establish more sophisticated pasture management plans – which will monitor the movements of livestock between areas managed by the state forestry funds and PUUs – will be further enhanced in the IFAD-funded Regional Resilient Pastoral Communities Project.

Bibliography

Abdiev A., Belenguer-Plomer M.A., Doménech C., Eralieva M., Mundy O.,
IFAD, **"Technical Note on Pasture Condition Maps in Kyrgyzstan",** July 2021, pp. 2-4
https://www.ifad.org/en/web/knowledge/-/pasture-condition-maps-in-kyrgyzstan

Constituteproject.org **"Kyrgyzstan's Constitution of 2010 with Amendments through 2016"**
https://www.constituteproject.org/constitution/Kyrgyz_Republic_2016.pdf?lang=en

Dörre, A. **"Promises and realities of community-based pasture management approaches: Observations from Kyrgyzstan."** Pastoralism 5, 15 (2015).
https://doi.org/10.1186/s13570-015-0035-8
https://pastoralismjournal.springeropen.com/articles/10.1186/s13570-015-0035-8#citeas

Dorre, A. and Ulan Kasymov, "**User-Based Pasture Management in Kyrgyzstan: Achievements, Challenges, and Trends Challenges, and Trends**", Conference Paper to the Conference: XXIV International Grassland Congress / XI International Rangeland Congress, Nairobi, Kenia, 2021
https://www.researchgate.net/publication/356988330_User-Based_Pasture_Management_in_Kyrgyzstan_Achievements_Challenges_and_Trends_Challenges_and_Trends

FAO, "**Kyrgyzstan treats its pastures as 'national treasure'**", Bishkek – Kyrgyzstan, 2015
https://www.fao.org/europe/news/detail-news/en/c/308275/#:~:text=In%202009%2C%20the%20Pastures%20Law,be%20shifted%20to%20private%20ownership.

FAO and IFAD. 2022. GeoTech4Tenure – "**Technical guide on combining geospatial technology and participatory methods for securing tenure rights.**" Rome, FAO.
https://doi.org/10.4060/cc1076en

Jepsen F., Rota A., Liversage H. and Hubert Chartier ML, **"Legal reform, governance and natural resource management: the Kyrgyz pasture reform",** Journal of Law and Rural Development Land Governance, Issue 1, February 2017, pp. 43-48

Lemus R. and Peavey T. "**Strategic Points for Developing a Grazing Management Plan**", Volume 13, Issue 8, 2021
http://extension.msstate.edu/newsletters/forage-news/2020/strategic-points-for-developing-grazing-management-plan

Ozkan S., Mottet A., Mundy O., FAO and IFAD, "**Technical note - Low carbon livestock development in Kyrgyzstan: Quantifying the future impact of the Regional Resilient Pastoral communities Project on greenhouse gas emissions**", 2021 pp. 3-9
https://www.ifad.org/en/web/knowledge/-/low-carbon-livestock-development-in-kyrgyzstan

IFAD "**Indigenous peoples' collective rights to lands, territories and natural resources Lessons from IFAD-supported projects**", 2018, p. 7
https://www.ifad.org/en/web/knowledge/-/publication/indigenous-peoples-collective-rights-to-lands-territories-and-natural-resources

IFAD, "**Kyrgyzstan Livestock and Market Development Programme Project Completion Report Main report and appendices**", 2020, Report Number 5387-KG
https://www.ifad.org/documents/38711624/40049138/LMDPII%20_%20PDR%20%20_0000-304-632.pdf/13af623b-51eb-47e7-a48f-51e5e2d660a2?1517974723308

IFAD, "**Kyrgyz Republic Country Strategic Opportunities Programme 2018-2020**", 2018
https://www.ifad.org/en/-/document/country-strategic-opportunities-programme-2018-2022

ILC, "**Community Based Natural Resource Management in Kyrgyzstan. ILC'S Database of Good Practices**".
https://d3o3cb4w253x5q.cloudfront.net/media/documents/ilc_case_study_0125_kyrgyzstan_en.pdf

Mestre I., "**Community-Based Pasture Management in Kyrgyzstan. What impacts on the resilience of local communities?**", International Conference on Research for Development (ICRD 2017), Sep 2017, Berne, Switzerland. ffhal-01907299f
https://hal.archives-ouvertes.fr/hal-01907299/document

Ministry of Economy of the Kyrgyz Republic and GIZ "**Analysis of livestock and pasture sub-sectors for the NDC revision in Kyrgyzstan**", June 2021
https://www.ifad.org/documents/38714170/43753590/livestock-kyrgyzstan-report.pdf/d8e61fd2-3f79-6617-6e42-557b6b1bebaa?t=1632306045700

Rabezanahary A., Gerli B., IFAD "**TOOLS AND GUIDELINES, HOW TO DO NOTE**
How to do note: Integrating the Gender Action Learning System (GALS) in IFAD operations", 2022
https://www.ifad.org/en/web/knowledge/-/how-to-do-note-integrating-the-gender-action-learning-system-in-ifad-operations

Rakhmanova D., UNDP Program Manager: "**Political and Administrative Central Governance Programme**" Kyrgyzstan
https://unece.org/fileadmin/DAM/hlm/prgm/cph/experts/kyrgyzstan/documents/UNDP.local.governance.pdf

Scalise E., Undeland A., “**Kyrgyz Republic: Women and Community Pasture Management**”, Landesa TM and Resource Equity, August 2016
https://www.landesa.org/wp-content/uploads/2016-Best-Practices-Case-Kyrgyzstan.pdf

Tagaev K. “**Assessment of community-based pasture management in mountains inner Tien Shan. A case study of Cholpon Aiyl Aimak in Naryn province Kyrgyz Republic**”, United Nations University Land Restoration Training Programme [final project], 2018.
http://www.unulrt.is/static/fellows/document/tagaev2018.pdf

World Bank, “**Pasture Management Improvement Project**” (P145162), Implementation Completion Report (ICR) Review”, 2019
https://documents1.worldbank.org/curated/en/331561584107100782/pdf/Kyrgyz-Republic-Pasture-Management-Improvement-Project.pdf

International Fund for Agricultural Development
Via Paolo di Dono, 44 - 00142 Rome, Italy
Tel: +39 06 54591 - Fax: +39 06 5043463
Email: ifad@ifad.org
www.ifad.org

facebook.com/ifad
instagram.com/ifadnews
linkedin.com/company/ifad
twitter.com/ifad
youtube.com/user/ifadTV