

# Pasture Management in Tajikistan for Integrative Land Use Management Approaches (ILUMA)

Conceptual  
Framework

Policy  
Brief

Forest

Experiences

**ILUMA**



Pasture

Wildlife

Agrobiodiversity

# Pasture Management

Sustainable pasture management for improving grassland ecosystems and livelihoods of pastoralists.

## 1. What is this land use practice about?

The Republic of Tajikistan is the smallest landlocked country in Central Asia. Mountains cover more than 90 percent of the country. With a total area of pasture of 3.9 million hectares, alpine ecosystems thus constitute 80 percent of the country's agricultural land, which is used heavily for livestock husbandry. Most of the livestock is privately owned, while approximately 96 percent of products, including dairy, are produced by private farmers. Only a few farms use modern technology.

Due to land degradation and overgrazing, the area for pasture has decreased since independence. Yet, the livestock numbers have increased from 4.5 million head in 2005 to about 7.4 million head in 2014 (table 1). This increase of over 65 percent is the main driver of overgrazing.

Pastures play a major role in economic development and in reducing poverty in rural Tajikistan. However, the degradation of pastures is posing an increasing threat to rural livelihoods. It is also threatening the important biodiversity of adjacent ecosystems, with restoration being nearly impossible and becoming more and more expensive.

## 2. Cornerstones of the Sustainable Pasture Management

Many different projects and donor-funded initiatives are continuously contributing to the identification of solutions and supporting efforts to rehabilitate degraded pastures. At a 2013 meeting of practitioners and experts working in the field of pasture management on the occasion of the approval of the first Tajik legislation on the issue – entitled, 'On Pasture' – it was noted that there is weak or inconsistent networking and coordination among pastoralist organisations and knowledge exchange among related stakeholders, as well as a lack of synergies in activities and weak legislative framework. The approval of new legislation marked the starting point for Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH (German Federal Enterprise for International Cooperation's) work on pasture management.

The most important 'cornerstones' regarding the land use practice 'pasture management', are the following:

- Pasture Governance
- Pasture Management Techniques

Table 1: Animal husbandry, 2005–2014, thousand head.




	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
<b>Total</b>	<b>4 501</b>	<b>4 661</b>	<b>5 580</b>	<b>6 024</b>	<b>6 106</b>	<b>6 369</b>	<b>6 092</b>	<b>6 855</b>	<b>7 100</b>	<b>7 397</b>
<b>Beef cattle</b>	652	666	838	866	878	912	978	995	1 023	1 169
<b>Milking cows</b>	720	757	864	933	952	985	1 033	1 049	1 076	1 093
<b>Pigs</b>	1	1	1	1	1	1	1	1	1	1
<b>Sheep</b>	1 893	1 952	2 374	2 579	2 617	2 729	2 288	2 960	3 097	3 227
<b>Goats</b>	1 160	1 209	1 424	1 568	1 583	1 666	1 715	1 773	1 826	1 830
<b>Horses</b>	75	76	79	77	76	76	77	77	77	78

Source: Agency of Statistics, website, 2015.

## Cornerstone 1: Pasture Governance




<p><b>GIZ Experience for Implementation</b></p>	<p><b>Improvement of the legal framework</b></p> <p>Tajikistan faces a major problem of unsustainable grasing pressure from high livestock numbers and insufficient pasture management. The country is in a dire need of better pasture governance based upon a solid legal basis. Therefore, GIZ in Tajikistan has worked on the improvement of the legal framework and facilitated a dialogue between different stakeholders.</p> <p><b>Reference material:</b></p> <p>Institutional analysis on pasture management in Tajikistan: <a href="#">K-Link</a> / <a href="#">Website</a></p> <p>Pasture Law <a href="#">K-Link</a> / <a href="#">Website</a></p> <p>Pasture User Unions (PUU): <a href="#">K-Link</a> / <a href="#">Website</a></p> <p>Policy note on PUUs: <a href="#">K-Link</a> / <a href="#">Website</a></p>	
<p><b>Key Elements of the Experience</b></p>	<p><b>Guiding principles and the way how they are related to ILUMA dimensions</b></p>	
<p><b>Institutional analysis on pasture management in Tajikistan</b> that outlines the institutional and legal set-up and distribution of roles and responsibilities in the pasture management sector of Tajikistan. The analysis can indicate potential entry-points for future donor-supported activities that could strengthen the institutional basis for sustainable pasture management in Tajikistan.</p>		<p>Raise awareness of stakeholders on the institutional and legal set-up. Identify entry-points for future improvement. Ensure good donor coordination. Involve stakeholders from different governmental and non-governmental institutions and organisations.</p>
<p><b>Law ‘On Pasture’ and its by-laws (PUUs charter, etc.)</b> passed in 2013, which regulates access to pasture resources and is governed by the Land Code. Primary pasture use rights over most of pastures have been allocated to individuals, often on a first-come-first-served basis. Common problems include lack of secure pasture use rights for most livestock keepers, high rental fees, underuse of remote pastures and overuse of pastures near villages, and few incentives for land use right holders and pasture users for sustainable management of pastures. Note that a new law has been adopted as of June 2019.</p>		<p>Specify the roles and responsibilities of each stakeholder.</p>
		<p>Identify needs for further competence development among all institutions involved in pasture management.</p>
		<p>Specify the roles and responsibilities in pasture management. Support the creation of Pasture User Unions (PUU) and a Commission on Pastures (CoP).</p>
		<p>Inform pasture users of laws and regulations regarding pasture management and support their compliance. Support pasture users in developing compliant pasture management plans.</p>
		<p>Support development of laws, amendments and by-laws. Support exchange between national, district and local levels to deal with challenges and gather ideas and input from all stakeholders.</p>











<p><b>Pasture User Unions (PUU)</b> are comprised of pasture users and are established at the jamoat (rural municipality) level with members from several villages. It is a formal organisation, replete with a statute and legal registration, stamp and bank account. The advantage of a PUU is that members can work together to solve immediate problems while also planning future joint activities. For instance, they can control livestock grazing, monitor the condition of pastures, repair or rehabilitate pasture corridors, monitor animal health and organise vaccination of the entire livestock in the community, and most importantly, protect the interests of each member of the PUU to ensure secure access to pastures.</p>		<p>Encourage pasture users to join or found a PUU. Support PUUs to register legally as a union and to join the national Pasture Management Networking Platform (PMNP). Ensure PUUs are linked to each other, to the national level and to other organisations working on pasture management.</p>
		
		<p>Study whether there exist conflicts over access to pasture, interest to join pasture management activities, or availability of pasture through the jamoat. Be aware of transhumance corridors used by big herds, particularly during summer.</p>
		<p>Ensure a fair sharing principle of economic benefits is in place between PPU members.</p>
		<p>Support establishment of a knowledge management platform for PUUs.</p>
<p><b>Policy note on Pasture User Union (PUUs)</b>, the purpose of which is to inform the Minister of Agriculture, the Deputy Prime Minister and the Executive Office of the President of Tajikistan about the registration of local pasture user unions, their rights, and limitation over the use of pasture lands.</p>		<p>Raise awareness among key decision-makers in relevant ministries regarding the importance of PUUs and their legal registration.</p>
		<p>Identify entry-points for future improvements in registration, in particular how to simplify the process. Institutionalise exchange between PUUs and the Ministry of Agriculture, especially the Pasture Trust.</p>
		<p>Involve NGOs in helping PUUs to register themselves, in particular by working and sharing knowledge with the latter.</p>
<p><b>GIZ Experience for Implementation</b></p>	<p><b>Pasture Management Networking Platform (PMNP)</b> seeks to foster national dialogue and knowledge exchange based upon practical and on-the-ground experiences of network members.</p> <p><b>Reference material:</b></p> <p>Gender Analysis and Policy note: <a href="#">K-Link / Website</a></p> <p>Quarterly newsletter on Pasture Management: <a href="#">K-Link / Website</a></p> <p>Pasture map: <a href="#">K-Link / Website</a></p> <p>Policy note on PUUs: <a href="#">K-Link / Website</a></p> <p>Documentation of exchange visit: <a href="#">K-Link / Website</a></p>	

Key Elements of the Experience	Guiding principles and the way how they are related to ILUMA dimensions	
<p><b>Gender analysis and policy notes</b>, in which Tajik and international NGOs, donor projects and experts' operating in the field of pasture rehabilitation and livestock development come together with public partners to analyse the role of women in pasture management and relations between men and women in the sector. The policy note gives insight into gender roles in pasture management and provides recommendations on how to apply gender-sensitive or transformative approaches in pasture management.</p>		<p>Raise awareness about the role of women and men in pasture management. Develop leadership skills among young rural women.</p>
		<p>Support and encourage women to set up their own PUUs, businesses, or NGOs.</p>
		<p>Empower women to achieve transformative change in practice. Identify a change-maker who can motivate other women to become more active. Engage older women in order to have younger ones follow in their footsteps.</p>
<p><b>Quarterly newsletters</b> are useful for keeping each member of the PMNP informed about the latest news from various organisations concerning pasture management.</p>		<p>Encourage members to share and exchange news and knowledge in general. Inform stakeholders about latest news and modern techniques. Disseminate best practices through a quarterly newsletter. Engage different readers by addressing all levels.</p>
		<p>Engage the relevant ministries to participate in the newsletter, if not even potentially take over authorship.</p>
<p><b>Mapping of all projects contributing to sustainable pasture and livestock management</b>, in the form of an interactive GIS map, enables all PMNP members to see all past and existing projects throughout the country, thereby fostering better awareness and synergy.</p>		<p>Raise awareness about relevant projects and use synergies. Ensure the map is available to all stakeholders involved in pasture management.</p>
<p><b>Field exchange visits among the members of the PMNP</b> encourages knowledge exchange on pasture management techniques and learning about various pasture conditions in the regions of Tajikistan. Field exchange visits are organised with members of the network.</p>		<p>Ensure that pasture users, experts, and local authorities join exchange visits. Increase understanding of the importance of sustainable pasture management. Encourage knowledge transfer of good practices.</p>

<p><b>Regional Pasture Network</b> promotes the exchange of experience and expertise in pasture management in Central Asia, China, and Mongolia. It focuses on pasture management, but also includes aspects of forest and wildlife management. To ensure sustainability, the RPN has recently been handed over to a consortium of local NGOs that will host it in the future.</p>		<p>Ensure democratic access to relevant information for all stakeholders. Make lessons-learned from ongoing and concluded projects available beyond the project duration.</p>
		<p>Provide a platform for political dialogue, highlighting the importance of the topic to decision-makers and building networks amongst practitioners.</p>

## Cornerstone 2: Pasture Management Techniques

<p><b>GIZ Experience for Implementation</b></p>	<p><b>Pasture Management Planning in Tajikistan</b> is needed to contend with overgrazing, especially in the immediate vicinity of villages. Overgrazing puts significant pressure on communal pasture lands and leads to serious land degradation. This land degradation, in turn, puts the livelihood and food security of the rural Tajik population at risk. Despite the adoption of a law 'On Pastures' in 2013 and its revision in 2019, community-based controlled grazing mechanisms are not yet widespread. Key culprits behind the lack of such mechanisms are the absence of by-laws and weak law enforcement.</p> <p><b>Reference material:</b></p> <p>Pasture Management Plan: <a href="#">K-Link</a> / Website</p> <p>Pasture Plant Species Catalogue: <a href="#">K-Link</a> / <a href="#">Website</a></p> <p>Grasing calendar: <a href="#">K-Link</a> / Website</p> <p>Documentation of sustainable fodder production: <a href="#">K-Link</a> / <a href="#">Website</a></p> <p>Hay carrying technology: <a href="#">K-Link</a> / <a href="#">Website</a></p>	
	<p><b>Key Elements of the Experience</b></p>	
<p><b>Pasture management plans (PMPs)</b> are effective tools for improving community pasture management practices and increasing benefits derived from livestock keeping. Thus, a PMP template is proposed that can be adjusted per regional pasture situation (e.g. high altitude or lowland pastures), PUU preferences and project needs and wishes.</p>		<p>Scope the environmental condition of the pasture area for which a PMP (pasture management plan) is to be developed. Do not restrict the PMP to pasture management, but also include planning for livestock management in general.</p>
		<p>Use sufficiently simple templates that any PUU member can easily understand. Use sufficiently simple formulas when calculating balances for the number of animals and their fodder requirements.</p>
		<p>Train PUUs and local NGOs in developing PMPs and ensure regular monitoring.</p>
<p><b>Guiding principles and the way how they are related to ILUMA dimensions</b></p>		

<p>Considering <b>pastures plant species catalogues and carrying capacity calculation tools</b> are vital before starting the development of any management plan, as planners need to know about the geo-botanical composition of the pasture species. Of equal importance is calculating the carrying capacity based upon the pasture state.</p>		<p>Raise knowledge about pastures' actual carrying capacity among ordinary pasture users and managers. Provide information about plant species, especially those that are beneficial for the pasture area, and identify potentially harmful or non-edible plant species.</p>
		<p>Ensure plant species catalogues are available for all PUUs, as well as provide a Tajik-language copy to all PUUs.</p>
<p><b>Grazing calendars</b> enable pasture users to jointly identify and agree upon when and where to graze their livestock, as well as define fallow periods.</p>		<p>Develop a grazing calendar together with the PUUs and local NGOs.</p>
		<p>Monitor the PUUs to ensure that they comply with developed grazing calendars.</p>
		<p>Ensure that all members of the PUU have equal access to the pasture resources as planned in the grazing calendar, so as to prevent conflicts from arising.</p>
<p><b>Sustainable fodder production</b> addresses the problems of increasing number of livestock amounts and a general scarcity of pasture areas in Tajikistan. Both problems have led to overgrazing, especially winter pastures. Fodder is scarce and often does not last until spring, which leads to pastures being grazed too early in spring, diminishing recuperation time for growth. This approach provides solutions at the local level for rehabilitating degraded summer pastures by fencing off rain-fed pastures located close to the villages, so as to foster fodder production.</p>		<p>Use traditional, local varieties of fodder seeds. Increase plant diversity to foster nectar for pollinators and beneficial insects. Control and prevent erosion.</p>
		<p>Promote locally-available fencing material that is affordable to farmers. Ensure farmers receive sufficient economic benefit from fenced areas. Support farmers with diversified seeds for reseeding purposes.</p>
		<p>Train farmers in how to make living fences. Train farmers on diversifying their fodder plants.</p>
<p><b>Hay carrying technology</b> can make harvesting fodder from steep highland mountain slopes less cumbersome. Such technology can enable the rapid descent of sheaves of hay, as well as carry the fodder to homes.</p>		<p>Ensure optimal use of fodder production areas. Train farmers in building low-cost harvesting and carrying technologies.</p>
		<p>Ensure access to technologies via documentation of techniques on platforms like Wocat and PANORAMA.</p>

## **Imprint**

### **Published by**

Deutsche Gesellschaft für  
Internationale Zusammenarbeit (GIZ) GmbH

Registered offices  
Bonn and Eschborn, Germany

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November, 2019

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GIZ is responsible for the content of this publication.

On behalf of  
Federal Ministry for Economic Cooperation and Development (BMZ)

The publication is distributed free of charge.