GLOBAL ENVIRONMENT FACILITY (GEF) FUNDED PROJECT "ACHIEVING LAND DEGRADATION NEUTRALITY TARGETS OF GEORGIA THROUGH RESTORATION AND SUSTAINABLE MANAGEMENT OF DEGRADED PASTURELANDS "

NATIONAL PASTURELAND MANAGEMENT POLICY DOCUMENT

FULL VERSION

December
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Acronyms and Abbreviations

ACDA	Agricultural Cooperatives Development Agency, MEPA (*until January 1, 2020*)
APA	Agency for Protected Areas, MEPA
BLM	Bureau of Land Management, US Department of Interior
CEDAW	Convention on the Elimination of all Forms of Discrimination Against Women
CPRM	Common Property Resource Management
ELD	Economics of Land Degradation
GIZ	German Agency for International Development Cooperation
LEPL	Legal Entity under Public Law
LDN	Land Degradation Neutrality
MESD	Ministry of Economy and Sustainable Development of Georgia
MEPA	Ministry of Environmental Protection and Agriculture of Georgia
NASLM	National Agency for Sustainable Land Management and Land Use Monitoring, MEPA
NASP	National Agency for State Property, MESD
NAPR	National Agency of Public Registry, Ministry of Justice of Georgia
NFA	National Forest Agency, MEPA
NP(C)LE	Non-Profit (Non-Commercial) Legal Entity
NPMPD	National Pasture Management Policy Document
PA	Protected Area
PUU	Pasture Users' Union
RIA	Regulatory Impact Assessment
RDA	Rural Development Agency, MEPA
RECC	Regional Environmental Centre for the Caucasus
SEA	Strategic Environmental Assessment
SRCA	Scientific Research Center of Agriculture, MEPA
UNCCD	United National Convention to Combat Desertification

Glossary of Terms

Pasture/hay land identification: The identification and mapping of those areas of agricultural lands to be physically categorised as pasturelands and haylands based on existing (soviet) land use maps, remote sensing, GIS analysis, public registry data and field verification.

Pastures/haylands categorization: assigning the category of pasture or hayland land to all relevant agricultural land plots by registering of all relevant land plots in the public registry under the pasture/hayland category or by assigning a category to already registered plots (category registration). These categories have legal meaning as the new legislation on pastures will apply only to pastures and haylands.

Pasture classification: Identification and mapping of pasture vegetation types according to standard national cover type descriptions. These classes will not have a legal meaning but are used in a practical sense to support pasture use planning and the setting of carrying capacity for grazing units. The level of detail used will depend on what is practically required for planning and on the existing data and resources available.

Pasture zoning: Identification of pasturelands as village, near summer, remote summer and winter pastures for the purposes of local-level pasture use planning. These categories have consequences for tenure regimes and so must also have legal definitions.

Pasturelands assessment: Assessment of pastures productivity/degradation trends at municipal level according to SDG 15.3.1 sub-indicators (land cover, land productivity and soil organic carbon). This step is required to ensure that the subsequent pasture use planning process takes into account pasture condition, promoting recovery where possible and resulting in Land Degradation Neutrality over the landscape. The methods for pasture assessment consist of a spatial set of tools and maps that provide data and information in an online, digital format that allows for cross-analysis and planning at a Municipal scale. The process relies on i) remote sensing technology, ii) participatory stakeholder inputs and analysis and iii) field surveys to verify on-ground realities and ecological trends, with the aim of contributing information and data to Land Degradation Neutrality (LDN) conceptual framework. It is through application of the conceptual framework that Georgia seeks to fulfil its national voluntary targets, in particular targets #1 *Integrate LDN principles into national policies, strategies and planning documents* and #4 *Degraded land will be rehabilitated*.

Zoning of pastures: for the purpose of planning the use of pastures at the local level, the identification of pastures as rural, near-village summer, distant summer and winter pasture. Determining the mode of use of the pasture depends on its zone, so a legal definition of these terms is needed.

Local level pasture use planning: a process of pasture use planning conducted at the municipal level, which includes: (i) a user inventory and assessment of traditional claims over pasture; (ii) delineation and mapping of grazing units; (iii) establishment of land tenure regimes over these. The process is conducted by the state/municipal bodies administering the pasture in question, in partnership with the municipality (in the case of state-owned pastures) or the municipality itself (in the case of municipally-owned pastures).

Grazing unit: A grazing unit (or allotment) is an area of pasture (and hayland) designated according to criteria including, but not limited to: season of use, altitude, distance from settlements, natural borders

or barriers, and identity and type of users. Each unit is assigned to a particular type of use and land tenure regime (individual/common subsistence use regime or commercial use regime).

Pasture Users' Union: A group of users holding use rights over a particular grazing unit by virtue of residence in the settlement holding traditional use rights over that grazing unit.

State/Municipal responsible body. A central state agency (currently NASP, APA and NFA and in future NASLM, APA and NFA) or a municipality responsible for administration of particular pasture areas (or to which the pasture area is registered).

1 Introduction

The National Pasturelands Management Policy Document has been prepared within the framework of the project " Achieving Land Degradation Neutrality Targets of Georgia through Restoration and Sustainable Management of Degraded Pasturelands``. The project, coordinated with the Ministry of Environment and Agriculture of Georgia, is funded by the Global Environment Facility (GEF) and implemented by the Food and Agriculture Organization of the United Nations (FAO). The project implementing partner is the Caucasus Regional Environmental Center (REC Caucasus). The Caucasus Network of Environmental Non-Governmental Organizations (CENN) is participating in the project.

The project consists of four components, the first of which aims to strengthen the regulatory and institutional framework in the field of pasture management at the national level.

As part of the first component, the project supports the development of a National Pasture Management Policy Document (NPMPD) that will contribute to implementation of LDN principles. Development of this document is coordinated by the Inter-Sectoral Coordination Working Group on Pasture Management National Policy Development (ISCWG), established by the order of the Minister of Environmental Protection and Agriculture of Georgia. A wide range of stakeholders have been involved in the process of drafting and reviewing the document.

The NPMPD has been developed in accordance with the “Rules for Development, Monitoring and Evaluation of Policy Documents” and the “Policy Planning, Monitoring and Evaluation Manual” approved by the Government of Georgia on December 20, 2019 decree #629. It concerns the *concept* stage of policy development outlined in that manual.

The purpose of the NPMPD is to establish a unified, coherent approach to pasture management that ensures the prevention of land degradation and biodiversity conservation on pasturelands, improvement of their productivity, and promotion of sustainable development of livestock production. It is based on a holistic approach that treats pasture management as an integral part of the livestock sector, considering the fact that different socio-economic categories of farmers have different objectives for pursuing livestock production. Issues of integrated management of summer and winter pastures and traditional transhumance are also addressed.

Based on this, the NPMPD sets out the vision and principles of sustainable pasture management, defines issues of ownership and pasturelands use rights, institutional arrangements, economic and fiscal aspects of pasturelands management, and arrangements for pasture use planning and monitoring.

The Document will form the basis for the preparation of a legislative package in the field of pasture management, which will also be supported by the project.

In the process of developing the concept of the national policy for sustainable management of pastures, the approaches and experiences of the management of pasturelands in European countries (and federally owned pastures the United States of America were taken into account, which were shared by specialists and experts from European countries (France, Switzerland) and of the US Forest Service (USFS). The document is mainly based on the existing approaches to pasture management in the high mountain regions of European countries which are suitable for the traditions of using pastures in Georgia.

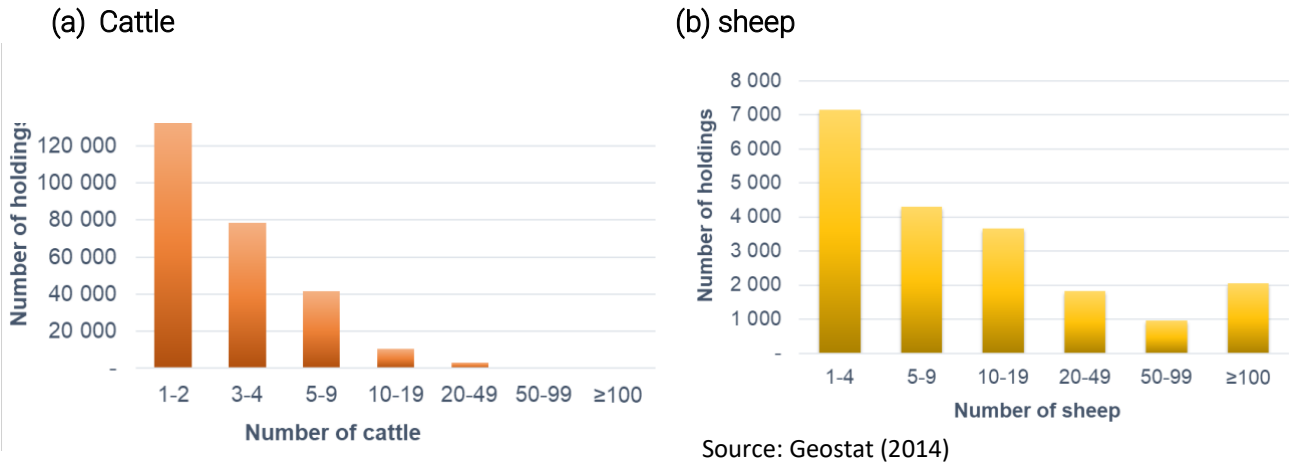
2 Situation Analysis

2.1 Background

Importance of pastures for livestock production: Pastures in Georgia cover around 1.7 million ha,[1] which amounts to 25% of the country's total land and more than 50% of lands classified as 'agricultural'. These pastures offer a wide range of readily available forage resources which can be exploited at different times of the year by moving animals to locations with optimal ecological conditions in a given season. Their use can greatly reduce the need for fodder purchase, in particular for sheep farming, for cow-calf and pre-fattening stages of commercial beef production, and for all livestock species belonging to small producers for whom livestock are a source of income and food.

Distribution of farms according to livestock ownership: Around 46% of rural households in Georgia possess livestock, but the majority of these are smallholders. For example, of the roughly 270,000 households holding cattle, 80% hold less than five head and only 5% hold ten or more. Of sheep owners, only 15% have 50 or more head (Figure 1). The mean proportion of household livestock produce consumed by the owners themselves is 80% (FAO 2017), underlining the importance of livestock for subsistence. But livestock are also a source of income and play a significant role in poverty reduction.

Figure 1. Livestock ownership distributions in Georgia



Source: Geostat (2014)

[1] Or 1.9 million ha if haylands are included.

Key points:

Pastures in Georgia are used by a large proportion of rural households and by many different types of livestock producer, having objectives ranging from subsistence and savings, through income diversification to medium and large commercial and specialist operations.

Legislative frameworks for pasture access must recognise the needs of these different types of user by providing all with pasture access through formal land tenure systems.

2.2 Different types of grazing systems

Sedentary grazing on village pastures: Many small livestock owners graze their animals around their village of residence. These animals are sedentary, coming back to their owner's house each evening. Usually, they are herded collectively in multi-owner herds with families shepherding on a rota basis. Areas grazed include fenced meadows within the settlement, uncultivated arable land (usually privately owned), fields in the fall and winter after harvest, and roadsides. In some places cattle are stall-fed for much of the winter. A common practice is to keep milking cattle close to the village, whilst sending juvenile and non-milking animals to highland pastures during summer with the village herd, so some producers may own a mixture of sedentary and mobile stock.

This type of farming is extensive, with little use of supplementary feed. Care of animals is minimal, breeds kept are usually local varieties and consequently productivity is low. In most cases, the average milk yield is 6-8 litres per day. For farms of this type, livestock may not be the main activity or source of livelihood for the household and in most cases, they are kept for subsistence.

Small farms mainly store dairy products in this way. Adolescent and non-lactating cattle from part of the villages may be sent to the highland pastures with the village herd during the summer.

A significant limitation of this grazing system is the lack of pastures, especially in densely populated villages in the lowland regions. As a result of land reform, land within villages and their surroundings is mostly privately owned. Sometimes fallow lands and arable lands after harvest are used for grazing. Due to the growing tendency of landowners to cultivate land, grazing areas for rural herds are declining, leading to conflict situations.

Seasonal transhumant systems to high-altitude nearby pastures: In many parts of Georgia animals are moved up to high-altitude pastures just above the village in the summer months, and we refer to these as near-village summer pastures. These migrations concern mostly juvenile and non-milking cattle, but possibly milking cattle as well. Near-village summer pastures are used from May through September, mostly by farmers having 5 to 20 head of cattle. Here, cattle and sheep are herded collectively in herds and flocks consisting of animals owned by multiple households.

Feeding cattle on mountain pastures during summer to some extent compensates for poor feeding during winter and allows for increased productivity. Milk is processed in the mountains and cheese then sold in mountain or lowland regions. In late autumn and early spring the cattle graze in the meadows and forests around the villages. In winter, cattle are kept in barns for 4-5 months, fed mostly on hay and crop residues.

Long distance transhumant systems using remote summer and winter pastures: This system of grazing is typical for sheep breeding and is found mostly in eastern and southern Georgia. It is based on the use of natural pastures - in highlands in summer and in lowlands in winter. Sheep (as well as small numbers of cattle) are grazed from May on alpine pastures, and in winter (from October) on steppe-like pastures in the lowlands. An example of the type of this grazing system is the seasonal migration of sheep between pastures in the south-eastern part of Kakheti (Shiraki winter pastures) and Tusheti alpine pastures. This system concerns mostly very large livestock producers, but stock belonging to smaller farms may be added to the flocks of large producers. Summer and winter pastures may be leased jointly by several livestock owners. Livestock migration tracks cover around 12,000 km but coverage with appropriate infrastructure and veterinary control stations is only partial. The majority of sheep in Georgia are grazed in these long-distance transhumance systems and the main factor limiting their expansion is the lack of winter pastures.

Intensive livestock producers: This system concerns medium and large livestock producers using high performing cattle breeds under intensive and semi-intensive meat and dairy production models. These kinds of farm generally own more than 20 head of cattle and are comparatively market-oriented as farmers produce milk and meat (slaughtered or live) for further processing and sell it to processing plants. Farmers may own crossbreeds and produce quality fodder (corn and alfalfa) to feed the cattle in winter (also using combined feed). A small number of farmers pursue intensive livestock farming using modern approaches. These tend to own more than 50 improved breeds of cattle (dairy: Holstein, Schwyz. meat: Salers, Angus). They mainly use their own improved and/or cultivated lowland pastures with adequate infrastructure (fencing, irrigation), as well as producing quality feed on arable land, including concentrates in feed rations, and using veterinary services and artificial insemination. The number of such farms is still very small, but in future it is expected to increase both in terms of the number of farmers and the volume of production. The main limiting factor for this type of grazing system is the use of pastures near medium and small farms by the population of nearby villages, which is why large producers are unable to lease additional land for grazing, which hinders their further expansion

Key points:

Optimal use of pasture resources in Georgia depends on livestock mobility - both long distance and altitudinal. Land tenure systems and management regimes need to recognise this by facilitating planning at the level of the grazing system - providing users with joined-up access to each of the seasonal pastures they need across the system, even in different regions.

Small and medium users often access pastures through collective herding systems, as the costs of moving and herding small numbers of animals individually are prohibitive, whilst larger herders may use pastures on a more individual basis. On those pastures where collective herding or management is the norm, the tenure regime must be designed to recognise and enable these modes of use.

Large commercial operations also need mechanisms which facilitate expansion into new pasture areas.

2.3 Environmental issues on pasture

Since the 1990s, livestock numbers in Georgia dropped precipitously. Although they started to recover after about 2010, in 2017 sheep numbers stood at 56% and cattle 70% of 1990 figures (Regional

Environmental Centre for the Caucasus 2019). Thus, it might be imagined that pressure on pastures has decreased in recent decades.

However, at the same time, winter pastures in Azerbaijan and Dagestan, previously available to Georgian livestock, were lost. Winter pastures now currently cover only around 25% of Georgia's pastures, representing a bottleneck in forage availability over the year. It has been suggested that stocking rates on these pastures are too high. Evidence for actual degradation is variable: some winter pastures are said to be in good condition, whilst others are highly degraded, particularly in arid areas such as Chachuna managed reserve. These arid areas of the country are also the most vulnerable to climate change.

On summer pastures, overall grazing pressure is low, manifested in the return of forests to many subalpine and alpine pastures and improvement in rangeland condition (Regional Environmental Centre for the Caucasus 2019). However, a number of observers have noted that grazing pressure is highly unregulated and uneven, leading to damage in some areas. Pastures around villages are characterised by uneven grazing pressure, associated with lack of local rules for organisation of grazing, springing from an absence of leadership and supporting legal environment. These pastures may be particularly vulnerable to degradation as they are used all year around, but as livestock numbers have increased, so has the tendency of animals to be taken to remote pastures, somewhat reducing this pressure (Neudert et al. 2019).

Key points:

Pasture condition in Georgia is affected by underuse or uneven grazing in summer areas and high intensity in winter ones.

Village pastures, areas around camps, stock tracks and arid regions are particularly vulnerable to damage.

Where problems arise to due unevenness of grazing on a single pasture, a supporting regulatory environment for users to better manage grazing pressure across the landscape are one solution to this problem.

But in some areas of the country, such as winter pastures, overall pressure is very high and governance mechanisms to limit overall stocking rates may have to be found.

2.4 The informal establishment of rights on pasture

Livestock owners use both village and distant pastures in a variety of different ways, but how do users know who has rights to which pasture areas? The implementation of a formal pasture use system (leasing state-owned or municipal-owned pastures) has just begun and only small portions of pastures are covered.

In most pastoral systems, before the advent of formal property rights systems, informal but widely accepted rights to pastures are established by historical precedent and according to claims recognised by the community of users. An important question is the extent to which these exist in Georgia.

There is evidence that resident users display strong *de facto* traditional rights to grazing lands around villages, and may grant or restrict use rights to outsiders, even though such decisions have no legal basis (Neudert et al. 2017). As in many pastoral systems, local users (villagers in this case) differentiate between the rights of residents and those of incomers, who tend to have fewer rights.

Concerning use rights to summer pastures, users from a particular village tend to use specific alpine pastures based on proximity or, for the more mobile users, traditional use rights as occurs in Tusheti and Shiraki. These are often based on Soviet-era use patterns, which themselves are based on much older traditions. It appears that *within* high altitude pastures each shepherd may occupy a specific camp (and thus pasture area) according to long-established arrangements amongst users (Lagodekhi APA 2016).

However, the above rights have no legal basis (there is no relevant legal framework). This is an important barrier to the implementation of a formal pasture system. Local pasture management institutions are weak and unstructured. As a result, there is uncertainty about who holds the right to use a particular pasture, leading to an open access situation in some cases, as well as an increase in conflicts related to the rising cattle numbers. However, some understanding of use rights does remain and should be taken into consideration in design of the regulatory framework.

Key points:

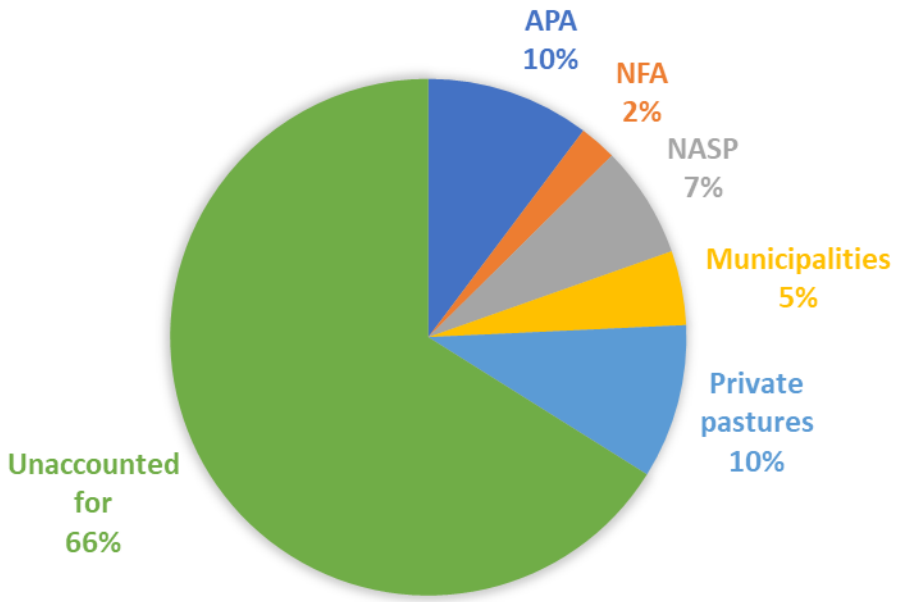
In property rights systems the underlying *de facto* forms of existing property right must be considered during elaboration of formal legal framework. These can be identified, codified and integrated into the legal system in order to promote social justice and avoid conflicts - by setting the criteria by which long standing claims of existing users can be assessed and recognised.

There is evidence that some forms of traditional use right are still recognised in Georgia and are relevant for pasture use and access outside formal systems.

2.5 Legal framework for pasture access

The formal arrangements for pasture access do not reflect the traditional use rights and claims over pasture by resident users or long-term mobile users mentioned above, nor do they reflect collective herding practices. How exactly formal rights are provided differs according to the organization responsible for pasture management and disposal (Figure 2). Due to the problems with categorization and registration of pasture and hayland, a large proportion of pastureland is not formally registered to any state or private body. Much of this may be nominally state lands. Other areas may have been converted to cropland and privatised.

Figure 2. **Pasture area by ownership and state/municipal responsible body**



Note: Figures provided to RECC by the NASP, NFA and APA and available statistics for municipal and private pastures cover only 34% of the 1.796 million ha pastures recorded during the last land categorisation exercise in the 1990s. A large proportion of the unaccounted lands are likely to be nominally (but unregistered) state pastures. These figures do not include haylands, estimated to cover an additional 144,400ha.

Pastures under State Ownership

The National Agency for State Property (NASP) under the Ministry of Economy and Sustainable Development (MESD) is currently responsible for the disposal of state-owned movable and immovable property including state-owned lands. Although only a minority of these are formally registered to the state, the total area of nominally state lands is likely to cover the majority of pastures in Georgia (Figure 2). State-owned pastures cannot be privatised and according to law[2] are to be leased out by the NASP for a maximum of 49 years. Allocation is conducted centrally by electronic auction in which the bid starts with a set annual floor price per hectare.[3] There was an informal moratorium on pasture leasing since 2015, but in 2021 the State Program for Access to State-Owned Pastures[4] re-opened the possibility of leasing state pastures, this time for maximum three-year period. The National Agency for Sustainable Land Management and Land Use Monitoring (shortened here to NASLM) was delegated responsibility to implement this program in cooperation with the NASP.[5] Other than the bid amount, the only eligibility criteria is livestock ownership. Prior use of the pasture by the applicant, residency or long-standing claims

[2] The Law on State Property of 2010.
[3] Floor price is set through Resolution No. 15 of 2011 of the Government of Georgia on Starting Price for Rural Land Sold on Auctions) and stands at 15 GEL per ha for most pasture, and 8 GEL per ha for pasture in Akhmeta and Dedoplistskaro municipalities.
[4] Resolution N497 of the Government of Georgia of October 6, 2021.
[5] The NASLM identifies those areas of pasture to be leased - or individual persons may identify plots, prepare the cadastral survey and maps and submit these the NASLM (if area is 100 ha and above) or to NASP if area is less than 100 ha. The NASP will then register this pasture and NASLM will publish the tender. The parties to the lease agreement under the program are the NASP, NASLM and the lessee.

of other users are not taken into account, although municipalities have the power to veto the leasehold if they believe the pasture is needed for local users. Leasehold contracts are theoretically provided for a fixed number of stock, which must not be exceeded, with monitoring theoretically carried out by the NASLM. Although pastures cannot be privatized, due to issues with categorization some lands actually used as pastures may be labelled as arable lands and sold into private ownership.

Agency for Protected Areas (APA) holds around 184,209 of pasture in zones classified as grazable (Artsivadze 2022),[6] corresponding to 10% of the area categorized as pasture in the 1990s. Here also the only formal land tenure arrangement is the leasehold.[7] These are allocated, not by auction, but based on existing use, in coordination with municipalities. The users are identified, and their traditional claims assessed as part of a broader pasture use planning process, which also includes mapping of grazing unit boundaries, vegetation assessment, setting of stocking rates and design of a grazing calendar.[8] The lease contracts specify management arrangements which are much more detailed than those on state pastures, with enforcement and oversight to be provided by the APA.

National Forest Agency (NFA). Of the total Forest Lands, which cover more than 40% of the country, the majority are managed by the National Forest Agency (NFA). All forest lands are state-owned and among other categories include pastures as well. Figures for 2003 provided by the NFA suggest that they administer around 38,495 ha (or 2%) of Georgia's pastures and 3,098 ha of hayland.[9] According to the 2020 Forest Code, forest use is allowed for agricultural purposes, including grazing under *special* and *common* use rights arrangements – both allocated by the NFA according to forest management plans. *Special* use rights for ten years are allocated by auction.[10] Common use rights are available for grazing '*taking into account needs of local population*', but detailed use rights arrangements appear not to be specified in bylaws.

<u>Pastures under Municipal Ownership</u>

Municipalities: These hold around 5% of pastures in their own right and manage pasture on category V and VI protected areas, or delegate this to a non-profit (non-commercial) legal entity established by the municipality. In turn, these two categories of protected areas are not managed by the Protected Areas Agency, and they can include both agricultural (including pasture) and non-agricultural land owned by the

[6] According to the Law on System of Protected Areas grazing is allowed on pastures in PA national categories II (*National Park*) and IV (*Sanctuary/Managed Nature Reserve*) in areas zoned for 'traditional use' under management plans of these categories. The total figure for grazable pastures given here is not complete as data for some protected areas were not available in the cited source. Category V and VI protected areas (protected landscape and multi-use areas) are not administered by the APA; and often managed by a non-profit (non-commercial) legal entity established by the relevant municipality. Grazing is allowed in these areas, in accordance with sustainable management principles.

[7] Leasehold provision for grazing in PA categories where grazing is allowed was governed by the Governmental Decree #125 (22 May, 2013) `On Approval of the Regulation on Determining the Initial Auction Price and Conducting Auctions for Real Estate Transfer in Use within the Protected Areas`, repealed recently by the Governmental Decree #235 (10 May, 2022) with minor modifications.

[8] Since 2013, with the support of international organizations and local partners, a number of these pasture management plans have been designed, using pasture assessment methods designed to be cheaper and simpler than the full inventories carried out in the Soviet period.

[9] This figure may increase or decrease over time as the forest inventory is ongoing. The 2006 Georgian statistical yearbook of forestry suggested that the total pasture in the state forest fund was 41,884ha (Regional Environmental Centre for the Caucasus 2019) but this may include forests not administered by the NFA.

[10] The area selected by the forest management body or on the initiative of a potential user, in agreement with the municipality and according to the number of stock to be grazed.

state, municipality or private sector. Following the current legislation, it is more difficult for municipalities to register pastures as municipal property today, but legal analysis suggests that this is in fact still theoretically possible.[11] Municipal-owned pasture may not be privatised but can be allocated to users by auction and by single-tender procedure.[12]

Pastures under Private Ownership

Private owners. Figures in the national register suggest that 10% of all pastures are held in private ownership, but the real figure is likely to be higher as not all titles were added to the national electronic register. Individual or legal persons may freely alienate or lease these lands on their own behalf in accordance with civil law of Georgia.

Key points:

Legal arrangements vary by pasture owner. State-owned and municipal-owned pastures (excluding state-owned pastures within protected areas) are distributed by auction, on a first come first served to the highest bidder. The only additional criteria for participation in state auctions is the ownership of livestock. The distribution of pastures in this way does not consider de facto use of the pasture site or traditional forms of use recognized by local pasture users.

The legislation regulates the leasing of pastures within protected areas without auction, which provides for use rights claims by existing users. But in this model, there are no standardized protocols or criteria to guide the identification and recognition of eligible local users.

Although many pastures are used de facto on a common use (collective) basis in Georgia, there is no legal provision for common use property rights. The law does not require the identification of such pastures, nor does it specify legal ways to assign title to them. As a result, it is possible to lease these pastures to outside users. A large proportion of agricultural land near villages was privatised during earlier reforms. Consequently, even if the law regulates the common use of pastures, some villages may not be able to find any lands that could be set aside for common use. This is especially true in case of densely populated villages in the lowlands of Georgia.

[11] The 2014 Local Self-Government Code of Georgia indicates that agricultural land (including pastures) that is privately owned or registered as state property will not be considered municipal property (Article 107). However, paragraph 3 of the same article allows municipalities to apply to the public register for the registration of agricultural land, which is not yet registered and located in the territory of the municipality. This implies that in theory municipalities can still register lands that have not yet been registered by the state.

[12] Article 122 of the Local Self-Government Code. The decision to run an auction is made by the executive body of the municipality, but transfer by direct disposal (single-tender procedure) also needs the consent of the municipal council. Direct disposal may be made where there are not enough auction participants or upon application by individuals. Municipalities may set a *variety of conditions for such direct applicants* and may also add conditions to auctions (conditional auction), over and above the bidding price (Khokhashvili 2022).

2.6 Social, economic and environmental outcomes of current pasture use mechanisms

The majority of pastures are unleased. The agricultural census (2014) suggested that private households and legal persons had formal tenure (ownership or leasehold) over 265,200 ha pastures at that time. This suggests the possibility that only up to 17% of the 1.7 million hay meadows and pastures were under formal tenure in 2014. Data provided by the NASP[13] suggests that around 25% of state pastures administered by this body are leased, but this figure probably represents formally registered state pastures only and does not include nominally registered pastures, which may cover a much larger area (see Figure 2). Part of the pastures owned by the municipalities are leased, although it seems likely that most of them are used informally for common grazing by the local population. A large proportion of leasable land in protected areas is also still to be contracted out to users (Khokhashvili 2022).

The majority of users do not hold any formal tenure rights over pasture. The census (2014) suggests that of the roughly 400,000 households with livestock, only around 20% hold any formal tenure over pasture (Figure 3). These figures are lowest for those using village pastures alone, and highest amongst mobile household using winter pastures.[14] Based on available data, it is difficult to estimate the share of formal pasture access among users who use highland summer pastures, overwintering the cattle on their own farms (and not on winter pastures). However, it is clear that highland pastures are mostly used informally by these users. Users without titles to pasture cannot be integrated into management systems and further, do not pay for pasture, which affects the taxes and rents levied by local government and state responsible bodies.

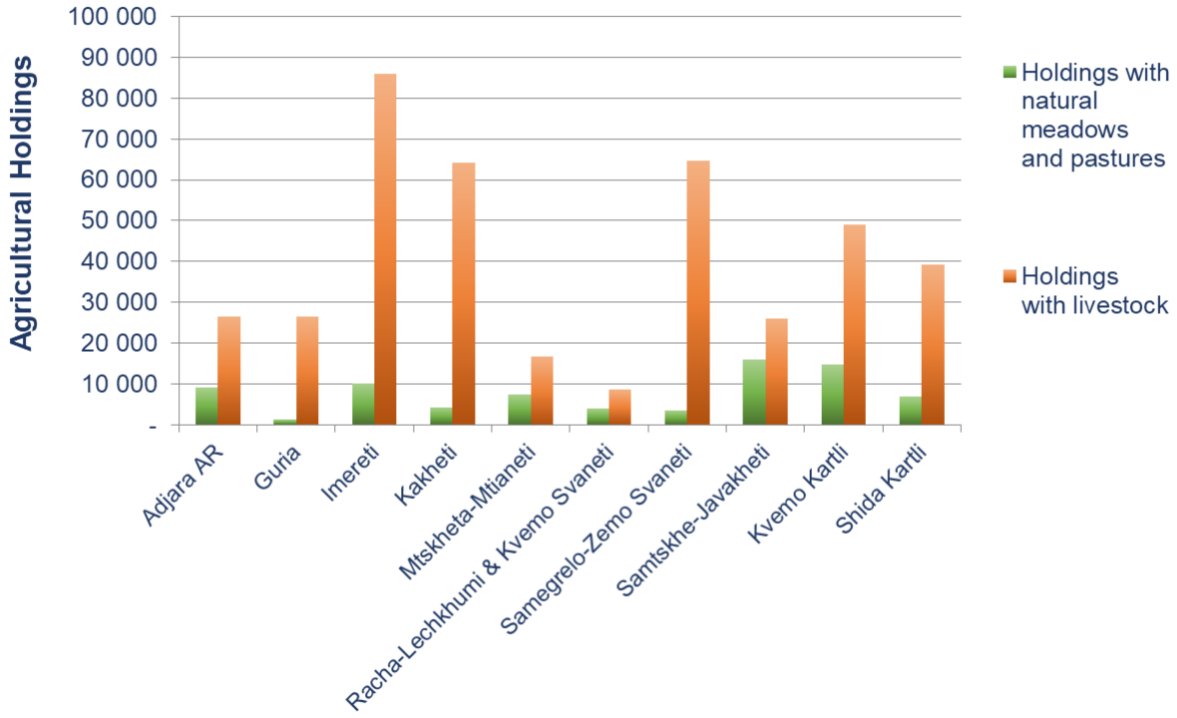
The vast majority of pasture users cannot access the auction system - which has both high transaction costs and hands pasture to the highest bidder. Other issues with pasture auctioning include:

- Users unfamiliar with information technology may find it hard to participate in electronic auction.
- Groups of small and medium size livestock owners herding together are not legal entities and thus may find it difficult to register leaseholds. The only way to do this is to elect a representative to participate in the auction, but in case of winning, the leasehold rights will be legally granted only to that one person individually and not to all the occupiers collectively.
- The incumbent user has no guarantee of winning the bid.

[13] Municipal-level data provided to RECC in October 2021.

[14] For example in Sagarejo, no village users but 67% of mobile users hold a written lease agreement to winter pastures with the administration (Kruwinus et al. 2019). In Khaketi region more broadly, another survey suggested that 50% of mobile households but only 15% of resident users leased or owned pasture. However, of those leasing, around a third had only subleases (Westerberg et al. 2021).

Figure 3. **Proportion of rural households holding livestock and pastures or meadows**



Sub-leasing practice and risks of conflict: The fact that the pasture leasing process is held by electronic auction at the national level has led to unequal access and speculation, with leaseholders often subleasing to users unable to participate in auctions (Westerberg et al. 2021). Some local livestock owners have lost access to pastures to users from outside, either through leasehold auction or privatisation of land categorised as arable but actually used by locals as pasture, leading to conflict.[15] In many cases however, the municipality vetos such bids.

Leasing pastures to incumbent users without auction, as occurs in protected areas, can also be problematic and has been associated with controversy in some cases. These issues may be associated with the collective nature of herding practises (which sit poorly with individual leasehold allocation) and the additional financial and management obligations which leasing contracts place on small producers. Pasture management plans have been successfully implemented or are being implemented in some protected areas, but not all areas are yet covered. In some protected areas community grazing still continues on an informal basis (Artsivadze 2022).

Legal protections for stock tracks are not effective: Routes suffer from blocked or privatized sections, inadequate size of resting areas and infrastructure. Poor veterinary control is a significant problem.

The lack of clear land rights leads to overlapping claims, in particular between sedentary producers and mobile users passing through village pastures. Mobile herders may damage fields and hay meadows and

[15] https://www.interpressnews.ge/en/article/117183-confrontation-occurs-between-the-population-of-the-village-zeghduleti-and-the-law-enforcers-the-population-block-the-gori-bershueti-section

compete with local livestock by grazing village pastures, and is a common source of conflict (Neudert et al. 2017).

Leasing costs can be crippling for livestock producers and a disincentive for good management: The base prices for leasing state pastures are high (15 GEL/ha), to which must be added the property tax on the land. Consequently, the costs can reach up to 30 GEL per hectare. Bids during auction presumably force the price up even higher. Such prices have been found prohibitive for development of livestock production (ELKANA 2014, Westerberg et al. 2021). Leasing costs make it economically irrational to conduct pasture management interventions such as destocking or inter-annual pasture rotation. The logic of a property right allocated by area rather than livestock number means that there are strong incentives to lease as little land as possible and use the rest informally.[16]

Environmental problems (Degradation of land on pastures and measures to improve the condition of pastures): Lack of tenure arrangements makes pasture improvement measures less likely - for example such measures are least likely to be taken by village pasture users, who have no formal land use rights (Kruwinus et al. 2019). Leasehold contracts on state lands outside protected areas lack detailed rights and obligations of users regarding management. Whilst these need to be strengthened, at the same time arrangements must provide scope for flexibility, particularly in protected areas and arid landscapes (e.g., in Kakheti region).

Key points:

A small proportion of pastures are formally leased, and a large proportion of livestock owners find themselves outside formal tenure arrangements. They are thus also outside legal management and payment systems.

Users lacking formal tenure over the resource can lose their access to it, which is both unfair and a cause of conflict.

Although pastures can be allocated by direct disposal to traditional or incumbent users on APA managed lands, there is no standardised mechanism for identifying 'traditional users'.

Individual leaseholds will not work for small and medium livestock owners. The practices of collective herding on village grazing lands and various pasture sharing mechanisms on many summer pastures require collective pasture tenure systems, but no such mechanisms currently exist in law.

2.7 Gender and pasture management

Inequalities affect women's roles and responsibilities in property rights, decision-making, and access to resources, as well as the use and control of income, assets, resources and services. Such inequalities restrict women's potential but also limit the economic opportunities of the entire family. Increasing women's access to land, livestock, education, financial services, extension, technology and rural employment, would boost their productivity and generate gains in agricultural output, food security, economic growth and social welfare (FAO 2018).

[16] Recent surveys found mean leased areas on winter pastures of 274 and 209 ha respectively (Kruwinus et al. 2019, Westerberg et al. 2021). Yet in arid areas, areas grazed by a flock of sheep around a water point or barn to a radius of 5km - more likely to be an accurate reflection of the areas actually used – would be over 5000 ha.

Under the UN Sustainable Development Goals (SDGs), Target 5.A calls on countries to "undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws". In 1994 Georgia joined the UN Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW). The committee has called for the government to ensure that rural women have adequate access to economic opportunities and equal opportunities to participate in decisions relating to the agricultural sector. It also sets out the concept of temporary special measures, such as quotas to tackle gender inequalities.

Gender roles in the livestock sector: In Georgia, the share of women-headed agricultural holdings is high, at 31 percent (Geostat, 2014). But generally, in family farming, the distribution of tasks is highly gender-based. Whilst men are responsible for animal feeding and herding on pastures, women devote more time to livestock, as they are involved in milking and milk processing (FAO 2018). Household income and food depend on the health and quality of livestock grazed on pastures, and women, therefore, have an important stake in sustainable pasture management. However, because the social status of women in rural areas remains low, the "invisible" nature of their work means that their roles relating to livestock and pasture management may be underestimated with the risk that they are left out of decision-making and capacity development. The higher representation of men in managerial positions and in technical subjects such as agriculture, engineering and construction contributes to the challenge of making gender-responsive provisions in policy and law. Low numbers of female extension workers and service providers mean that gender-responsive services in pasture and livestock management may be lacking.

Ownership of productive assets by rural women. A very similar proportion of men and women report ownership of livestock at 42% and 39% respectively (Geostat 2018). These figures largely reflect reporting of *joint ownership* as part of a household, with only 10% of livestock owners (of which more than half were women) believing that they owned livestock as individuals. However, in land access there are clear disparities: although 58% of those with agricultural land believed it belonged to the household or couple, in 48% of cases the formal title actually belonged to males and only in 16% of cases to females, with the rest in joint ownership. This lack of land registration limits women's access to governmental subsidies, credit and grant schemes that operate in the regions because of the lack of collateral (FAO 2018). Funding schemes in rural areas are less accessible for women except when women are explicitly targeted.

Gender-responsive infrastructure: In family farming, men are usually involved in agricultural activities that require technology and machinery, and women are mostly involved in manual and labour-intensive work but have less access to labour-saving technologies. This may be an issue also in livestock production. Poor rural infrastructure, limited access to transport and modern energy supplies have a direct impact on women's time use in particular. This exacerbates their challenges in participating in pasture management and related income generation. Without women's participation, new institutions for pasture management may prioritize projects and spending according only to those tasks traditionally conducted by men.

Key points:

Women devote considerable time to livestock but the social status of women in rural areas remains low and gender stereotypes persist.

Women have limited access to ownership of land and other property, which in turn limits their access to financial services.

There is a gender gap in technical and professional expertise on agriculture and rural development.

Women´s access to new technologies, machinery and agricultural inputs is lower than that of men.

These issues are likely to impact women's access to pastures, agricultural services and to gender-responsive infrastructure for livestock production.

2.8 Overall systemic and institutional issues

There is no legally designated body managing state pasture lands (outside those areas allocated for management to the APA and NFA). Identification of grazing units for allocation to users, pasture classification, vegetation assessment, grazing planning, monitoring and oversight of grazing are all components of pasture management that can only be implemented at the local level. However, there is substantial lack of details or even total absence of technical standards and requirements to regulate the above issues. Moreover, Georgia's legislation does not provide clarity on which body is to be designated responsible for pasture management on state-owned lands (outside those under the direct management of APA and NFA). Under the recently initiated State Program for Access to State-Owned Pastures, monitoring of compliance with leasehold contract terms is delegated to the NASLM. Yet, the NASLM has neither a local presence (territorial staff) nor grazing specialists at the central level to effectively implement these monitoring activities in the field.

Capacity of protected areas authorities (APA): Here, the obligation for detailed pasture use planning demands even higher capacity on the part of managing body. The APA has brought in external organisations using donor funding to conduct vegetation assessment and planning, but lacks human resources with appropriate skills and technical resources to follow up. On the other hand, the APA does have local staff and rangers so there is potential for capacity building.

Although it is closest to users, the municipality has almost no role in pasture management: The lowest level of government is the municipality, and actors working at this level are most likely to have the local knowledge required for many aspects of pasture management - in particular, assessment of traditional claims to pasture and conflict resolution. But even on those pasturelands registered to municipalities, their role tends to be restricted to pasture disposal alone. They lack the mandate or capacity for broader management and monitoring tasks. Spatial planning, which is the responsibility of the municipality, is one mechanism which could be used to improve land management at the local level, but there currently is no obligation to consider pastures and haylands during spatial plan development. Neither do regulations specify the development of any municipal-level grazing plans during the pasture disposal process.

Legislation excludes pasture users from the management system: Entirely external management and monitoring on issues related to pasture management and management (including disposal) without the

active participation and involvement of pasture users are unlikely to be successful in the medium and long term. But there are no legal obligations for state or municipal responsible bodies to support management through user engagement and capacity building; nor is there a framework for user institutions to be created or registered, and no provision for co-management between users and state/municipalities, a mechanism which works in many parts of the world. This issue is connected to the lack of legal options for common property resource management.

Responsibility for stock tracks (livestock migration trails): The timing of movements to seasonal pastures is defined by the National Food Agency. The Agency is responsible for veterinary control points on herding routes, governed by veterinary rules. These suggest that there should be resting and watering places for animals on herding routes. However, no responsible unit and/or staff have been assigned within the Agency for implementing these measures.

Issues with data availability: For the reform of the existing system of pasture management or the introduction of a new system, it is necessary to have a complete database on pastures, which should at least include comprehensive and dynamically updated information on both unregistered and registered pastures, forms of ownership, bodies authorized to dispose and manage them, changes in the purpose of land use, categories of pastures, owners/users of pastures, requisites and basic conditions of issued leases, lease (or other form of use) agreements, amount of allowed livestock, location, areas, basic data, etc. It is difficult to implement new (or indeed existing) legal systems without such accurate data on current pasture leaseholds, their owners, location and area. It is not obligatory for the National Agency of Public Registry (NAPR) to specify the sub-category of 'pastureland' in the public registry when it comes to land title registration for agricultural lands. As a result, many registered pastures are recorded simply as 'agricultural lands', without the specification of pasture (or any other) category. Earlier in the land reform process it was not mandatory to register leaseholds in the electronic register, so some titles are held only on paper and do not appear in the in the national digital register. Lastly, many state lands are not actually registered to the state so despite being nominally state property, do not appear in the land register. Therefore, it is not possible to obtain accurate and complete data from NAPR on pastureland tenure status.

Key points:

Pasture management including (i) the granting of property rights to users, (ii) pasture assessment & planning and (iii) enforcement and monitoring can only be achieved in a systemic way from national to local levels. National legislation does not provide for system wide pasture management components such as standard cover type descriptions of pastureland vegetation *(including typology of the natural vegetation cover of pastures in Georgia; zoning of pastures across the country / identification of pasture regions/zones based on functional purpose and natural-geographical signs/ and standardization of assessment of pasture vegetation /including natural food resources)*; procedures for designation of geographical grazing regions or zones; methods for pasture classification and assessment; criteria for designation of grazing units for allocation to users; and protocols for grazing plans and monitoring procedures.

The existing institutional framework does not provide clarity on the identity of the designated body which will be responsible for management of those state-owned pastures not under direct management of APA and NFA.

Although the newly established NASLM has general legal authority in the field of agricultural land management and land use monitoring, it requires capacity strengthening with further territorial presence to deal with monitoring of leasehold contracts under the recently initiated State Program for Access to State-Owned Pastures.

The government body closest to the geographical scale at which pastures must be managed is the municipality, but this body has full powers only over disposal of the pasture which it owns. It lacks technical staff engaged in other pasture-related tasks. Spatial planning has not yet included pasture management except few international donor-driven small-scale pilot projects.

There are no legal mechanisms to create or support user institutions, provide them with legal tenure or include them in pasture management.

The APA has engaged in pasture management at the local level with support mainly from donor funding. But its local staff lacks technical capacity to conduct these tasks independently.

There is a lack of information on actual proportion and area of pastures held under different types of ownership and lease, which would be important for decision making. If agricultural land is registered without indication of the sub-category ('pastureland'), then theoretically this land plot can be privatized,

2.9 Summary

- National legislation does not provide legal arrangements for system wide pasture management components such as pasture use and conservation planning at national and regional/municipal levels ***(including typology of the natural vegetation cover of pastures in Georgia; zoning of pastures across the country / identification of pasture regions/zones based on functional purpose and natural-geographical signs/ and standardization of assessment of pasture vegetation /including natural food resources)***; These include standard cover type descriptions of pastureland vegetation; procedures for designation of geographical grazing regions or zones; methods for pasture classification and vegetation cover assessment; criteria for designation of grazing units for allocation to users; and protocols for grazing plans and monitoring procedures.
- There is a lack of recent data on the actual area of land categorised as pasture. There is no complete database on pastures, which would at least include reliable and dynamically updated information on

both unregistered and registered pastures, forms of ownership, bodies authorized to dispose and manage them, categories of land, pasture owners, basic conditions of owners/beneficiaries, issued leases (or other forms of use) agreements, number of permitted livestock, location, areas, basic data, etc. Some registered pasturelands do not appear in the national land register, whilst others are present but lack land use category information, labelled only as 'agricultural land'. Many state pastures are unregistered. Thus, even basic statistics on pasture area, access and use are inaccurate.

- In Georgia, there are a multitude of different types of pasture user and grazing methods based primarily on local traditions and knowledge of grazing management, but the existing pasture allocation and management practices are neither appropriate nor adequate in terms of sustainable pasture and livestock management.
- Existing grazing methods depend on the exploitation of seasonal and spatial differences in forage availability. This is achieved through livestock mobility between pastures. But instead of 'joined-up' management at the grazing system level, pastures are allocated piecemeal to individuals through mechanisms unconnected with broader pasture planning processes.
- The legal framework does not include traditional (collective) grazing rights, which are widely used and recognized by the local population. Such rights have not been recognized either at the level of existing users on the scale of pastures used by former communities (currently administrative units of municipalities) or individual settlements. Current practices do not recognise actual or traditional use rights which have nevertheless a real existence on the ground and in the minds of users.
- Although the bulk of pasture users are smallholders, the existing auction system is available only to large livestock owners due to its high transaction costs and emphasis on financial criteria to win the bid.
- Thus, the majority of livestock owners lack formal title to pastureland. This is a source of conflict as well as leaving most users outside formal management and payment mechanisms.
- Leasehold costs are high for those with small and medium size livestock holdings, reducing both profitability of livestock husbandry and incentives for good management (which rely on using large areas and frequent moves or rotations).
- Outside protected areas leasehold contracts themselves include few details on pasture management obligations; and mechanisms of monitoring, enforcement and sanction are missing. The legislation does not define the body authorized to manage state-owned pastures (except for protected areas and pastures under the management of forestry systems). The central state institution (NASLM) currently participating in disposal of state-owned pastures under recently started State Program for Access to State-Owned Pastures has no local presence in order to conduct these activities. Along with this, the participation of municipalities in the field of management of municipally owned pastures is nominal. Even on municipally owned land, their role is limited to conducting a formal pasture disposal procedure. Municipalities, closer to the field, have no mandate for pasture disposal or management outside those pastures registered to them as municipal-owned pasturelands.
- Although many pastures in Georgia are used through collective herding arrangements, there is no legal framework for common property management - including the setting of boundaries, definition of user eligibility, recognition of user institutions (and their rights and responsibilities), or support to improve

management. Nor are there any arrangements for co-management between users and municipalities (or state-responsible bodies).

- A legal framework should (i) establish system-wide legal arrangements from national to local levels for all components of sustainable pasture management; (ii) set out institutional responsibility for overall coordination of pasture management at the national level and define a responsible body for direct management of state owned pastures outside those directly managed by APA and NFA; (iii) provide a set of different tenure arrangements appropriate for the different users and types of pastoral system existing in Georgia and (iv) lay out institutional arrangements and management mechanisms for each of these.

3 Vision

3.1 Outline of vision: conditions and enabling measures

3.1.1 Summary of core elements

As outlined in the situation analysis, Georgia has a range of different pastoral practices and socially diverse pasture user groups, and this multi-dimensional natural and social-economic environment must be considered during formulation of sustainable management policy. In this regard, it is proposed to establish a number of core elements for such a policy, with enabling measures necessary before these elements can be put in place.

Definition of pastures and scope of this concept. At the moment pasture in Georgia is defined as *a plot of agricultural land covered with herbaceous plants and/or shrubby plants (natural or cultivated) that is used for pasturing (feeding) animals, with or without agricultural buildings and/or ancillary buildings thereon, or a plot of land which may be used for that purpose having regard to its edaphic and climatic conditions and natural geographical location.*[17] It is suggested to maintain this definition as a basis for main scope for this concept and it shall apply to the lands accordingly categorised as pasture according to the Law on Determination of the Designated Purpose of Land and Sustainable Management of Agricultural Land. The same applies to haylands, which are also to be covered by the new legal arrangements.[18]

Coverage of lands under different types of ownership: Public pastures are currently administered by the Agency for Protected areas, National Forest Agency, municipalities and, for the bulk of state lands not delegated to theses bodies, the NASP (in partnership with the NASLM). In addition, the owner and manager of the state-owned agricultural and forest land within the Autonomous Republic of Adjara is the Autonomous Republic of Adjara. This policy document will apply to pasture coming under all these jurisdictions regardless of which state or municipal authority administers the pasture, establishing general principles and norms of pasture management. At the same time it is recognised that there are specific aspects of pasture protection and management within protected areas and forest lands and legislation governing protected areas and forests (Law on System of Protected Areas and the Forest Code) should be given priority in this regard. This policy document also concerns provisions for privately owned pastures, which should be subject to certain regulations.

Future status of pastures on public (state and municipal) lands. Pastures currently on state-owned and municipal lands will remain in the public domain, including both actually and nominally (registered and unregistered) state lands. This recognizes the status of pastures, like forests, as a natural environment and public good, with multiple uses for livestock grazing, tourism and mountain sports, wildlife and other economic uses such as beekeeping. Over the long term this will allow the setting aside of state-owned pastures for multiple sustainable use and conservation purposes in the interest of current and future

[17] Law On Determination of the Designated Purpose of Land and on Sustainable Management of Agricultural Land (2019).

[18] According to the same law, hayland is defined as: *A plot of agricultural land covered with herbaceous plants and/or shrubby plants (natural or cultivated) that is used for the preparation of hay, haylage, silage, grass meal or other additional feed for animals, with or without agricultural buildings and/or ancillary buildings thereon, or a plot of land which may be used for that purpose having regard to its edaphic and climatic conditions and natural geographical location.*

generations. This approach coincides with the legal status of natural rangelands and pastures in many developed countries (USA, France, Switzerland) and with their role as a natural space including many less fertile and remote areas. Thus, privatization of pasture will continue to be legally restricted, but allocation of state-owned pastures to individuals and groups for defined periods will be allowed.

On state and municipal owned pasturelands (including pastures within forest lands and protected areas), both individual (leasehold) and common property regimes will be available, depending on conditions to be determined locally.

On private lands current arrangements prevail but the state should promote sustainable management through development of management guidelines and extension services. It should consider intervention in land markets where there is a strong argument for public interest. For example, where large areas of private pasture were traditionally used for community grazing and subleased by these users.

The decision on which tenure regime is appropriate in different areas is to be decided on a case-by-case basis at the level of the municipality as part of a pasture use planning process involving the state/municipal body[19] administering the pasture, the local municipality in question and users themselves.

3.1.2 Enabling conditions and measures

System-wide enabling measures

A national framework should be established to provide legal arrangements for all components of sustainable pasture management that will include, but not be limited to:

- Detailed guidelines for the identification and categorisation of agricultural land into pasture and hayland based on the definitions/
- Statutory requirements and technical standards for pasture use and conservation planning at national and regional/municipal levels (including national standard vegetation cover type descriptions for pasture classification and designation of grazing zones by geographical attributes such as region, proximity to settlements and altitude).
- Methodologies for development of municipal-level pasture use plans including user inventory and mapping, pasture use zoning, migration arrangements and technical guidelines for designation of grazing units for allocation to users.
- Methodologies for vegetation and soil assessment to be implemented at municipality level as part of the pasture use planning process and which enable local bodies to plan grazing in order to meet requirements of land degradation neutrality (LDN).
- Methodologies for development of unit grazing plans based on timing, intensity and duration.
- Guidelines and standards for monitoring and oversight of grazing by designated public bodies.

An appropriate short-term action plan with indication of timing and financial resources must be developed for designing of the above national framework.

[19] We here define state responsible body as the body responsible for administering pasture on state lands – the APA and NFA on protected and forest lands, and NASP (or NASLM) on other state lands. Pastures registered to municipalities are administered by the municipal body. See Glossary.

Information needs

Identification, categorisation and mapping of pasturelands and haylands. Documented figures on the area of Georgia's pastures date from the early 1990s. Before a new vision and strategy for management can be employed, the areas of natural pastureland (and hayland) currently existing must be identified, mapped and *categorised* as pasture or hayland according to the law On Determination of the Designated Purpose of Land and on Sustainable Management of Agricultural Land. This information must be integrated into relevant databases and included in the national register for already registered state, municipal and private land plots. At the same time, nominal (unregistered) state pastures (and haylands) should be registered as state-owned lands.

Classification of pasturelands: Pasture areas should also be *classified* into vegetation types using nationally defined standard cover type descriptions and including identification of improved or seeded pastures. This will support pasture use planning and the determination of maximum stocking rates for each grazing unit. The level of detail used will depend on what is practically required for planning and on the existing data and resources available.

Zoning of pasturelands. Pasturelands must be identified as village, near summer, remote summer and winter pastures for the purposes of local-level pasture use planning and following criteria based on vegetation, altitude, region, proximity to settlements and actual use. These categories have consequences for tenure regimes and so also have a legal meaning.

Assessment of pastures. For pasture management planning at the local (municipal) level, it is important to assess the state and trends of pasture degradation. Based on the LDN national voluntary targets, pastureland condition and degradation trends should be assessed according to the sub-indicators of the SDG goal 15.3.1 (land cover, land productivity and soil organic carbon). Therefore, by using these indicators the assessment process will contribute to the achievement of national voluntary goals (in particular targets #1 Integrate LDN principles into national policies, strategies and planning documents and #4 Degraded land will be rehabilitated).

User inventory. In each municipality, an inventory and map of actual pasture users should be produced. This is required in order to assess traditional claims to pasture; establish the basis for rights-holding and PUU membership and set pre-emptive rights for leasehold applicants where appropriate.

Information management. Identification, preparation and submission of relevant documents for category assignment to the public registry, and also classification should be conducted by the NASLM. The inclusion of categorisation information on land registration documents must be mandatory and recorded in the national register by the NAPR through the NASP/NASLM. The pasture classification and zoning information must in addition be held in a national database of agricultural land to be managed by the NASLM.[20]

Local level planning processes: identification of grazing units and disposal to users

Following pasture categorisation, the next step is the development of municipal-level pasture management plans including the identification of grazing units on state and municipal-owned pastures. A grazing unit (or allotment) is an area of pasture (and hayland) designated according to criteria including,

[20] Article 5.2(a) of the law On Determination of the Designated Purpose of Land and on Sustainable Management of Agricultural Land specifies that the NASLM should draw up a balance sheet for land, to register agricultural land resources and to create an integrated database.

but not limited to pasture class and zone, seasons of use, informal use status and user identity and provenance - with each unit assigned to a particular type of use and land tenure regime. The pasture zoning and user inventory and assessments detailed above are therefore essential components of this planning process. A grazing unit may involve a single herd/flock or several herds and flocks depending on the nature of the pasture and the users involved and the planning process should **promote and conserve migratory patterns on the understanding that livestock movement between different ecosystems is one of the key elements in pasture management.**

Depending on the pasture type and zone and its location (for example in high-mountain regions), informal or traditional use status, as well as national security considerations for vulnerable areas near state borders, grazing units on state lands may be assigned to one of two land tenure regimes: common property resource management (CPRM) or individual leasehold. The allocation of lands to one or the other tenure regime will be decided at the local level, but it is suggested that all village and near summer pastures are most appropriately managed through CPRM whilst most winter pastures should be allocated by leasehold. The tenure regime on remote summer pastures will depend on local decisions based on the type and provenance of users.

In some cases, rural pasture may consist of several plots, some of which are registered as state property or municipal property, or may be unregistered. It is recommended that the management of common village pastures be carried out by the management bodies of the municipalities. For this, it will be necessary to transfer the state-owned rural pastures to municipalities for ownership or use. Unregistered plots may be initially registered as state property and then transferred to municipalities or directly registered as municipal property.

Maps of grazing unit boundaries should be available at municipal level for planning purposes. Then, based on grazing unit boundaries and characteristics, a set of basic rules (*including grazing timing, intensity and duration*) should be developed for each unit as a precondition for disposal. More detailed grazing unit plans may also be developed over time by users with extension and support.

Arrangements for cross-municipality migration of livestock

Management and allocation of grazing units between municipalities, which is essential for many migratory systems, may require either inter-municipality coordination or the wholesale allocation of pastures in one municipality (the host) to management by another (the using municipality). The latter arrangement concerns primarily pastures in Dedoplistskaro which are allocated for management by Akhmeta municipality, whose residents are the primary users of those areas. Apart from this single case, pastures will be primarily managed at the level of the municipality in which they are located. However, mechanisms will be put in place to ensure that outside users (from other municipalities) depending on those pastures in certain seasons are able to access them.

Stock migration tracks should remain as state property and be exempted from leasing - to be used by migrating herds and flocks. These areas need to be fully designated under the agricultural category of pastureland and cadastrally defined to halt all privatization. Previous leaseholds given on those pastures should be repealed with relevant compensation or, where available, substituted by new land plots. However, because migrating livestock producers come from far away and do not represent a cohesive user group, (passing through only) the users will not be able to manage this resource as common property and it will thus be up to the state or regions to maintain and equip these areas.

3.2 Pastoral land use systems

3.2.1 Common Property Resource Management (CPRM)

The central principles of CPRM

The central principle of CPRM is that a shared natural resource is managed by a group of users restricted to those considered by the group, or by law, to own rights to use the resource. The group thus controls the resource exclusively, restricting access by external entrants. The group has its own internal rules and regulations, monitoring and sanctions arrangements. This is what differentiates CPRM from open-access arrangements associated with the tragedy of the commons made famous by Hardin (1968). User-manager groups have various names in different countries but we refer to them here as **Pasture User Unions (PUUs)**. The theory underlying CPRM, based on observations of these systems in the management of water, fisheries and pastures was largely elaborated by Elinor Ostrom (see Ostrom 1990) who won the Nobel Prize for this work in 2009.

How does CPRM work?

When is CPRM appropriate? The system is appropriate on natural and semi-natural pastures where people herd collectively, sharing the same pasture area, infrastructure and shepherd(s). Or at a larger scale, where multiple single-owner herds and flocks from the same village may migrate together, share infrastructure and coordinate over pasture access. CPRM is often observed in remote or poorly productive areas upon which resources are variable in time and space and in which livestock numbers and users may also fluctuate over time.

In a CPRM system, the group holds tenure over a single grazing unit within which multiple herds belonging to different producers may graze. There are no legally defined internal boundaries between these users, although internal boundaries of *grazing sectors* may still be defined by the group as and when required. This confers enormous flexibility to manage the resource. However, the external boundaries of land over which each group holds common use rights must be legally defined.

Legal forms for PUUs

The formalization of the existing informal traditional use of pastures within the framework of the system of common use of pastures requires the creation of a new type of legal entity - the association of pasture users (that is, a group of pasture users) with its own internal charter.

In most countries, PUUs can be registered using legal forms available in existing legislation, such as non-profit associations or cooperatives. The non-profit form is more appropriate when the members are separate farmers, not sharing economic activities or liabilities and for whom the association exists uniquely for pasture management. The cooperative form is appropriate where members are actually pooling productive and financial resources for joint economic activities.

For this reason, it is proposed that PUUs in Georgia should be established to manage common resources as a private law legal entity based on membership in accordance with the Civil Code of Georgia.

Legally this could be defined as an NP(C)LE for the management of common natural resources. This would be a direct analogue of the "Agricultural Cooperative", introduced in 2013,[21] which was built on the more general commercial legal body of "Cooperative".

Thus, from a legal point of view, the Pasture Users Union (PUU) will be a legal entity with special status as manager of the shared pastureland and its own internal charter. Introduction of this status should be included as part of new legislation on pastures which should include the main principles for the operation of the PUU, rules for obtaining and terminating PUU status and specific legal aspects governing their role in pasture management, while all non-specific aspects will be governed by the provisions that are already in force for NP(C)LE under the civil law.

New legislation for PUUs must establish the following:

Identity of members: A PUU must include all 'eligible' users of a specific pasture area – which is usually established by residence, traditional user rights, historical claims and other criteria which may have been established locally many years ago or more recently in national law. Every livestock owner must by law be a member of a PUU.

There is a perception that common property systems are only for small farmers. However, according to the international practice, a single pasture may be used by both relatively small farmers and also very large commercial operations with their individually shepherd herds. All are members of the PUU.

Form of tenure over land: PUUs should hold a form of *permanent use right* over pastureland corresponding to the area over which they have jurisdiction according to the above-mentioned eligibility criteria. Thus, use rights are not obtained by auction or on a first-come-first-served basis, nor even by individual application, but **by right of law based on eligibility**. It should also be noted that, as legal entities, PUUs may also lease land, through the same leasehold procedures available to individuals, outside the area to which they hold use rights.

Supply and demand mechanisms in CPRM systems: To ensure that usable pasture resources are not wasted, most CPRM systems have mechanisms of allowing outsiders to graze when there is a surplus of pasture resources. They may then exclude them in more difficult years or if their own livestock increase. This helps keep pastures in good condition and is also a source of revenue for the host PUU, which usually charges more to outsiders.

This can be done either by leasing a small part(s) of the common pasture to non-members of the association of pasture users or by charging them a fee for temporary grazing.

The PUU charter and internal rules

The charter of the Pasture Users' Union (PUU) must comply with the requirements established by the Civil Code of Georgia. In particular, the charter should define: the purpose of the association's activity; the procedure for admission to membership, withdrawal from membership and expulsion; name of the decision-making body (person), decision-making procedure; the procedure for creation (election) of the governing body (leading person) and term of office; organizational structure of the union etc.

[21] Law On Agricultural Cooperatives of 2013.

PUUs generally have a similar structure to most other non-profit associations, with a general assembly including all members, an executive body and financial manager or accountant. The following information and management rules may appear in PUU charters and additional regulatory documents:

- Geographical area covered by the PUU.
- Eligibility criteria for membership.
- Means and mechanisms by which pasture access is established by the group - which will depend on relationship with the owner or allocating body.
- Process and rules for establishing a president and executive body for the association.
- Role and powers of the general assembly.
- Role and powers of the president and administrative council.
- Decision making processes.
- Internal rules for access to pasture – start and end of grazing on a pasture, movement rules.
- Annual membership fees (which may cover both rent and taxes, payments per head of stock and shepherding costs).
- Entrance fees for outsiders.
- Maximum carrying capacity or mechanisms for its establishment.
- Sanitary rules - vaccinations, ID documents of animals required for group membership and for access to remote pastures.
- Role and tasks of shepherd and responsibilities of the group towards him – for example payment, provision of accommodation, salt.
- Mechanisms for rule enforcement and sanctions.

Advantages of CPRM

A single interlocutor for many users: An advantage of CPRM for governments and administrators (as well as for PUU members) is that contacts between the government users can occur via the group, so the application of grazing rules and veterinary regulations, capacity building for pasture use management, subsidies for common infrastructure and other issues have a single interlocutor for many livestock owners - which is highly efficient.

Economies of scale for infrastructure development. The PUU is a conduit for funds, raised by the PUU itself, which can be used for common infrastructure development. Matching funding from the state can also help to develop pastures without favouring some individuals over others.

Affordable monitoring and rule enforcement: CPRM institutions have 'perfect knowledge' about what is actually going on where they work. Where CPRM institutions work well they can take on many of the monitoring and rule enforcement roles of government. Whether this will happen properly depends on institutional capacity and the level of ownership of the organisation by its members. At the initial stage, until the PUUs acquire appropriate knowledge and experience, monitoring of pastures transferred to common use and control over the implementation of established regulations and rules can be carried out by state and municipal bodies.

Environmental aspects, measures to combat land degradation etc. *(Ecosystem level management and planning flexibility)*: As mentioned above, pastures managed according to CPRM cover the entire area of the resource used by all group members and there are no legally defined internal boundaries between

users. This provides flexibility for efficient use and management of the resource, as well as rational planning of pasture land use, for example to achieve a neutral balance of land degradation. This also allows for effective implementation of climate change mitigation and adaptation measures. Such management flexibility may be particularly important in the face of climate change.

Preconditions for CPRM

Some form of CPRM must first exist in reality – outside the law. This means that people are already using a common resource and already have arrangements for deciding who grazes where. These arrangements are often based on historical precedent – 'what people have always done'.

The state must set the boundaries: The state should provide the user group with the physical boundaries of the lands over which they have use rights and some basis for membership criteria enforced in law, at the same time allowing the PUU a high degree of control of the resource within those legally set boundaries.

The state must stand behind the PUU, holding up internal decisions in law.

CPRM does not mix well with leasing. In places with both communal and leased pastures, leaseholders usually lease the best pastures first, and there is often tension between the two types of user (Rohde et al. 2006). Existence of leaseholds creates a race to lease which will eventually crowd out and replace common lands (Neudert and Rühs 2013). Abolition of leasing on those grazing units allocated to CPRM is thus essential.

It is for this reason that it is proposed here that the first stage of new pasture management in Georgia should be the designation or zoning of grazing units to separate CPRM and leasehold areas, with clear boundaries and eligibility rules (for use under CPRM or leasehold application) for each.

The location and boundaries of the pasture units to be managed within the framework of the common pasture use system (or other use regime) should be determined at the local level. These boundaries and the identification of beneficiaries should take into account the de facto situation and therefore may include both state-owned lands currently managed by the National State Property Agency, and at the same time managed by the Protected Areas Agency and the National Forestry Agency, as well as municipally owned lands and currently unregistered pasture lands, which are nominally state property.

What could be the basis for PUU membership in Georgia?

It is proposed that the location and boundaries of grazing units to be managed under CPRM (and other tenure regimes) should be determined at the municipality level by the designated responsible bodies .

These boundaries and the identity of eligible users should be based on reality and may include lands under the jurisdiction of more than one state/municipal body. The **use rights agreements** for pasture are made with the state/municipal body or their representative.

The basis for PUU membership and accompanying use rights over pasture will depend on the location and current users of the pasture. But **it is suggested that these rights be realised based on residence in the village which predominantly uses the particular pasture in question**. For example:

- In the case of village and near-summer pastures, these pasture areas are likely to be those in the immediate vicinity of the using village.

- In a second case a PUU in one village may hold use rights through traditional claims to pasture near another village in the same municipality, based on long term use and recognition by the local community in the host area.

It is proposed that these conditions to obtain use rights to pasture can only be realised *within* the municipality of residence. This means that users coming from outside the municipality, even if they have long-term claims over the pasture, must access the pasture through the *leasehold* arrangement, either as a PUU or as individuals. The only exception is residents of Akhmeta municipality which can hold use rights in Dedoplistskaro.

It is not the place of this concept nor for representatives of pasture management-related state bodies to determine who the eligible user groups are, as this can only be done at the local level. But in order to use lands designated to residents of a particular settlement under CPRM, all permanent residents or persons registered in the settlement, regardless of the number of cattle/sheep they own, must be a member of the Pasture Users' Unions (PUU). The total number of livestock owned by the villagers should not exceed the capacity of the designated pastures and to this end, a methodology for determining carrying capacity should be established at the national level.

In all cases, outsiders (non-members of the eligible group) can also use those pastures, based on demand and payment to the group of eligible users. This is important as it effectively means that use rights can be bought and sold and thus introduces an element of market efficiency into the pasture use system. Likewise, where local users exceed the carrying capacity of their pastures, they must either agree amongst themselves to reduce livestock numbers or apply to other PUUs to graze on lands elsewhere.

State institutions will develop a template charter and use rights contract for PUUs. The charter will define the rights and responsibilities of members to ensure sustainable pasture management. Members violating these rules will be expelled from the Union and excluded from pasture access. PUUs must respect the results of local level pasture use planning regarding stocking rates and *any additional specific management requirements* identified for the grazing unit(s) over which they have use rights. Provisions for suspension of use rights in cases of non-compliance should be included in the legislative framework.

3.2.2 Leasing systems

Key principles of leasing systems

The situation analysis outlined the major issues with the current leasing system by auction. Some of these problems can be ascribed to leasing in general, others to the auction arrangements alone. Whilst direct disposal to individuals does exist, the criteria for this process are neither standardised nor transparent.

The new system needs to be affordable and fair – with transparent mechanisms to ensure that those with livestock and existing claims based on actual use, have priority. It must ensure that a single individual cannot lease large areas already used by others having traditional claims, but who are unable to participate in the auction process for financial or legal reasons.

The fact of introducing CPRM will mitigate many of these problems, particularly on village and summer pastures. However, on winter pastures, some remote summer pastures and also in the case of users from one municipality requiring grazing rights in another, leaseholds will be the main form of access, so the mechanism of allocation should take the above factors into account.

Eligibility rules and criteria for leasehold award

At present the major criteria for leasehold eligibility on pastureland disposed of by the NASP is financial. One alternative criterion is actual (de facto) use, applied by the APA in protected areas. This type of allocation based on traditional claims and/or incumbency would protect existing users but is appropriate mainly at the beginning of a national pasture formalisation process, where there are many users with no formal tenure arrangements.[22]

Subsequent policies need to be designed for new users (new applicants), transfer between users, and for pasture areas which become free as people leave farming. Here, various models can be considered. These include an open auction, assessment of applications based on business, agricultural or environmental criteria; base infrastructure ownership (as on federal rangelands in the USA); or the need to expand onto adjacent lands by a growing enterprise. In some EU countries, leaseholds are disposed of by competitive auction, but certain types of applicants have pre-emptive rights, based on factors such as residency, existing farming activity, agricultural education, youth (as a form of support to young farmers) or adjacency of the parcel in question to existing lands used by the applicants. Gender is another possible criterion for pre-emption .

It is proposed to develop a unified system with a single set of rules for pastoral leasehold allocation for all grazing units on which this tenure system is applied - whether the pasture is owned by the state (and disposed by NASP, NFA or APA) or owned and disposed of by municipalities.

It is recommended that in the first instance (where leaseholds have not yet been disposed of), residence, incumbency (existing use of the pastureland), development of infrastructure by the applicant, and historical claims based on long-term use of remote pasture in one municipality by residents of another, should be considered first of all. In the absence of such users, or in the case of a lease of previously unused areas, the pasture leasehold allocation could be subject to an open auction.

It is recommended that criteria for leasehold provision and transparent systems for their application should be the object of more detailed study during the process of legislative development. This study should develop a hierarchy of eligibility criteria, protocol for identifying users and for assessment of competing claims.

Leaseholds for groups and agricultural cooperatives

Owners of small herds of cattle, who predominantly use the pasture collectively, will have the right to use the pasture by participating in the system of common use of the pasture - by joining the Pasture Users Unions (PUU). And those pastures that will not be subject to the use and management of the mentioned system will be available through their lease transfer to both agricultural cooperatives and PUUs, which, being legal entities, will have the right to receive pasture land through lease transfer as well.

Administrative level of leasehold disposal

Areas designated to leasehold will be identified as part of the local level planning process and leaseholds will be disposed of at the municipal level by the municipality or representative of the state body

[22] An analogous example is that of rangeland allocation to ranchers in the USA in the early 20th Century, which provided access to lands to incumbent users, reflecting reality on the ground.

responsible for the pasture in question. The identity of the lessor will thus be the municipality or state body to which the pasture is registered.

Terms of leasing contracts

Contract length

Long-term leases may be useful for small numbers of large farmers herding alone; on areas like winter pastures with high infrastructural investments such as barns and winter houses. Short or medium leaseholds allow for flexibility in landscape (municipal) level planning, as the leasehold size, boundaries and users and can be changed over time and land is excluded from leasehold for specific periods if needed.

Under the current state program, pastures are leased for a period of 3 years, with the right of extension. **For the purposes of this Policy Document, it is recommended that leaseholds should be less than ten years with provisions for renewal.**

Other terms of leasing contracts

In addition to the above, it is important to consider the pre-emptive right of current tenants, whether there is an automatic rollover, and how costs should be set (if not by auction). It is also important to consider whether leasing should be conditional on environmental management or outcomes; flexibility clauses; and whether there is to be shared responsibility for monitoring. The possibility of using leasehold contracts as collateral should be investigated, looking in particular at escrow waiver systems established by the United States Forest Service.

Existing leaseholds on community lands or by livestock owners with no stock

If livestock ownership, existing use or residency are included amongst criteria for leasehold provision, then Georgia needs to decide whether it is ready to annul leaseholds by existing leaseholders who do not fulfil these criteria, or to let those leaseholds continue to expiry. A second case to be considered is where large areas of lands used by communities were leased by a single individual and then subleased back to the users. Such lands should normally be designated as common property and again the repeal of the leasehold may be considered. **These types of cases should be defined at the national level and written into new legislation.** In such cases the state shall compensate for economic losses caused by the annulment of existing lease-holding contracts, but, at the same time, leaseholders should provide documented evidence on incomes and profits from the leased pastureland to justify the loss of expected gain.

3.2.3 Privately owned pastures

Existing privately owned pastures will remain so in terms of tenure arrangements, but current laws precluding new privatisation of state lands will continue to be in force.

Concerning sales of private agricultural lands,[23] co-owners and existing leaseholders already hold pre-emptive rights in the case of alienation, but criteria such as residence or ownership of adjacent parcels do not apply. Pre-emption by the state is possible for reasons of rational use of land resources, the protection

[23] Regulated by the Organic Law of Georgia on Agricultural Land Ownership of 2019.

of national security, the development of the countryside and agriculture, and the consolidation of plots of land.

It is suggested that this mechanism could be used by the state or municipalities in cases where lands traditionally grazed by communities or individuals with historical claims were privatised by individuals or firms under earlier legislation. Here, the traditional users may have entirely lost access or have to lease from the owner. Incorporation into state or municipal lands and subsequent provision under CPRM should be considered in these cases where the owner is willing to alienate the lands.

Leaseholds on privately owned pasture between private parties are conducted through contracts between the owner and the user, regulated by the Civil Code. These private lease regulations on agricultural land include an obligation to use the leased property for agricultural purposes and to maintain any infrastructure upon that land. The lease can be rolled over - and extended indefinitely if agreed by the parties. There is little regulation by the state concerning leasehold length, price or conditions for termination.

Concerning sustainable management by owners or leaseholders on private lands, these pastures are already subject to certain regulations, for example they cannot be converted to arable land, perennial crops or haylands.[24] In the future, the state should promote the sustainable management of these pastures through the development of appropriate guidelines and extension services. Developing a management plan should not be mandatory but may be recommended by the state or municipal responsible body, based on the same methods and protocols to be designed for state and municipality owned pastures.

3.2.4 Pasture zoning by tenure arrangement

Principles for selection of tenure system

Under CPRM, pasture users generally access land through guaranteed use rights, whilst leasehold is obtained by application. Therefore, these two systems cannot exist on the same lands. The local pasture use planning process should thus identify which areas are to be leased and which are common property resources. Areas to be managed as commons must then be withdrawn from the leasing process.

The choice of management regime will be based on a mixture of *the actual dominant form of use* (individual or collective) the pasture zone (winter, summer, village, near or remote) and whether the pasture is natural or improved. Information for these decisions should be available from the pasture classification and zoning, and user inventory undertaken as part of local pasture use planning.

Decisions as to which tenure regime should apply on different areas will be made at the local level, however, it is envisaged in this policy document that CPRM should be prioritised in the following areas:

- *Village pastures* upon which village herds traditionally graze collectively during the day, returning to the owner's farm at night. These pastures are used collectively and extend to up to 5-10km from the village. In new legislation, a precise definition of "village pasture" will be adopted.

[24] As above: Article 3: A plot of agricultural land shall not be systematically used for a purpose determined by a category of higher intensity without changing its category.

- *Nearby summer pastures* are areas, often adjacent to village pastures to which livestock are driven for the summer, but which usually constitute a relatively short migration from the village itself.
- Certain *remote summer pastures* are the subject of traditional grazing rights for specific groups and would thus be best managed under CPRM, at the discretion of local government and subject to strict regulations in order to achieve sustainable management while maintaining socially equitable and cultural values.

Individual leaseholds may be prioritised on the following types of pasture:

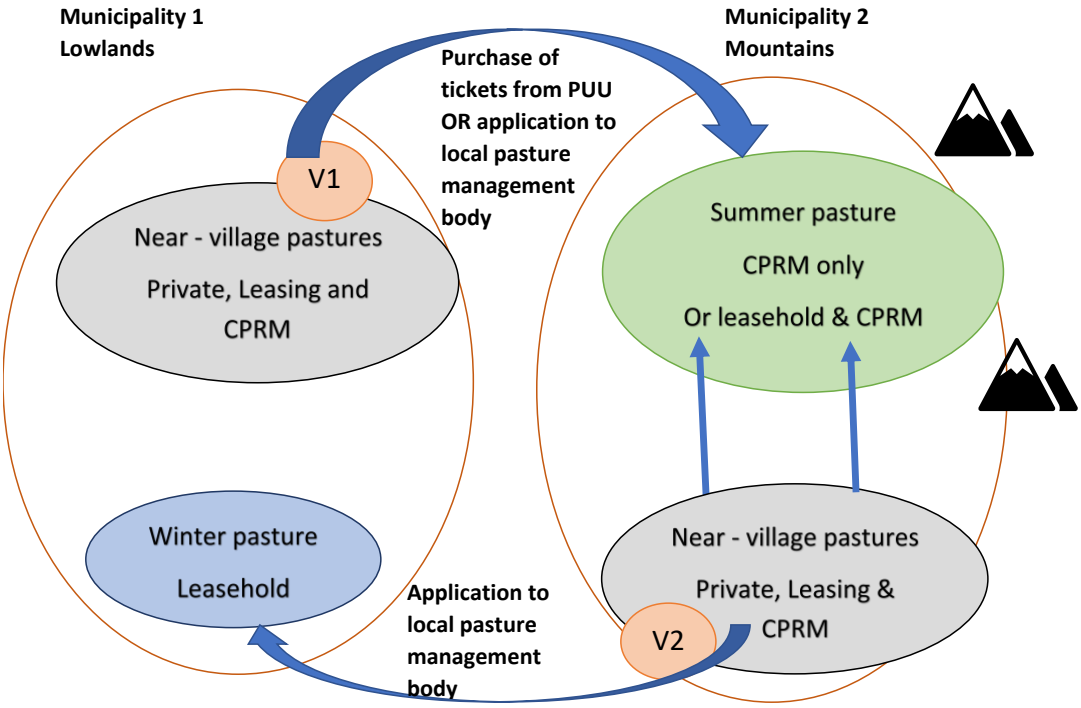
- *Winter pastures*, where de facto individual use and substantial individual investment in infrastructure is common.
- *Pastures near villages*, used intensively (fenced, improved) by individuals, combined with significant investments in infrastructure. Many such areas are already leased by individuals, but new leases can also be issued on these grazing units if the area and capacity of pastures in the vicinity of the village exceeds the number of village livestock. Traditional or existing users of the pasture should have the priority right to lease these areas.
- *On remote summer pastures where there is no traditional community grazing by rights-holders resident in the local municipality*. In these areas, non-rights-holding livestock owners having traditional or historical claims take priority for the leasehold.

Whilst natural highland pastures may be collectively managed in many countries, improved or near-farm pastures are often privately owned or leased as they are used individually and subject to considerable investments. This is important in the case of Georgia as the law includes cultivated fodder under the definition of 'pasture'.

A scheme summarising the above arrangements is shown in Figure 4. In general, the CPRM model takes precedence over individual leases in the sense that areas for traditional grazing by residents are designated first. On CPRM-designated pasture all resident users become PUU members. Leaseholds would be illegal on those pastures. As existing leaseholds (on those lands) come up for renewal, the land would be converted back to commons. **Georgia would have to decide whether it repeals leaseholds on those lands designated as common**.

On leasehold-designated pastures, contracts are awarded first to incumbent users with historical claims, and second by open auction to other potential users. Non-ights-holders may also access pasture controlled by PUUs through purchase of excess grazing rights if the PUU holds less livestock than the carrying capacity of their unit.

Figure 4. Tenure arrangements on different pasture types



Definition of grazing units

The allocation of pastures to tenure regimes is part of broader process of grazing unit definition – which splits pastures into management units by season of use, altitude, distance from settlements natural boundaries or barriers, and user group. This can only be done once pasture categorisation and classification are completed, and pasture zones are identified as village, near or remote summer and winter pasture. The NFA and APA may have additional conservation-related criteria for the designation and use of grazing units.

On common lands, each grazing unit is managed by a single collective manager (PUU), although it may be split into sectors used by different herds or flocks belonging to different PUU members. Thus, a unit can have only one PUU. But a unit may have several leaseholders in the case that no single applicant has enough stock to reach the carrying capacity of the unit. Thus, in all cases several herds and flocks on one unit are possible. The boundaries of grazing units to be managed in common are not produced according to the number of animals that the user group has at the time of the process, but according to geographical and social coherence (for example allocation of pastures in a mountain valley to those users living in the settlement closest to it).

The following examples give us some idea of how grazing units may be defined:

- **Village pastures used collectively by local residents** could comprise one unit managed by a single PUU. Or in the case of a large village, there may be several units if these are geographically separate areas, used and managed for different livestock species or by different groups from the same community.

- **Village pastures under leasehold**: these may include areas already leased and which are never likely to come under a CPRM regime, for example, improved and fenced lowland pastures used by dairy farms.
- **Near summer pastures:** A near-village summer pasture in a single mountain valley shared by a group of users from a single village or group of villages, herding together would form a natural, collectively managed grazing unit.
- **Remote summer pastures:** could be split into grazing units depending on user group identity, natural boundaries (valleys) and altitude. Each unit could be managed by a single PUU or, if there are no traditional claims to these pastures defined by residence in a particular community, they could be leased out to individual herders. Units which have been used by communities from other municipalities for many years would also be accessed through leasehold by those users, either as PUUs or as individuals.
- **Winter pasture** associated with one unit of base infrastructure (barn, water point) would naturally approximate to one lessee per unit.

Thus, it is likely that most **village and near summer pastures should be held in common and managed by PUUs,** whilst most winter or near-farm pastures, on which barns and houses are constructed, remain under leaseholds. Remote pastures may be managed by communities or leased where there are no traditional rights holders from the village or municipality in question.

The problem of village pastures

Through the above-described planning process, each responsible state body/municipality or pasture management council should identify and designate grazing units for CPRM near villages. However, there are a number of difficulties concerning those areas where there are no real natural pastures around villages - for example in lowland areas. Here, livestock graze along roads on unused arable lands or on arable lands after harvest. Most of the land is suitable for arable farming and thus is unlikely to be available for grazing. Here there are a number of possibilities. For example:

- Municipalities could decide that grazing is simply not allowed outside the holdings already leased or owned, effectively banning this kind of grazing. Such a ban already exists in law (for example in the Administrative Offences Code of 1984), but is not effectively enforced.
- They could identify marginal or poor-quality state or municipal lands suitable for grazing and which are unleased or on which the leasehold is about to expire - and which could be used for common grazing.
- There could be a process by which private owners (particularly those with adjacent parcels on marginal lands) are solicited to lease land for grazing, facilitating a process of land consolidation, at least in certain seasons, and with the fee going to the owner.

Concerning conflicts between sedentary and mobile users of village pastures, new provisions described thus far in this Policy Document will resolve them in two ways:

- By designation of cadastrally defined migration corridors, assigned to the mobile herders and thus barred from access to local users.
- By designation of village pastures as common property resources to local users PUU, which then have a legal basis to charge non-member migratory users for use rights, thus compensating them for the costs incurred.

3.2.5 Mainstreaming of gender considerations in the proposed arrangements

The implementation of reforms in this Policy Document should enable women's equitable access to pastures, as well as improve access to related capacity building and services. As we have seen, the proportion of female-headed agricultural holdings is very high. So, in order to achieve these aims it is essential that women are engaged in the local level pasture use planning process, establishment of PUUs, and running and management of these once they are set up. Equal access to leaseholds should also be ensured, using temporary special measures as recommended by CEDAW. The mechanisms for addressing these points are detailed below:

User inventory: During the identification of traditional users, those communities with claims on pasture are to be identified. At this stage, it should be clear that community means all inhabitants including women and men, and that female-headed households with livestock are not excluded from the user inventory and that they attend every meeting.

Establishment of PUUs: This process will include the compilation of a list of members and a series of meetings during which the PUU is formed and representatives elected to the executive body. At least one representative of each livestock-owning household should be a member of the general assembly, but special attention should be made to ensure that female household heads owning livestock are both registered as members and attend the meetings. Other women are likely to own livestock jointly with their husbands, and both may be PUU members if they wish. Women's participation as members of the general assembly, and on the executive committee should be particularly targeted. To this end, it is suggested that a minimum of 30% of actively participating members should be women and there should be at least one woman on each executive body.

Planning for infrastructure development: The local level pasture management process will include planning for infrastructure development in pastures at the municipality level, whilst PUUs may also decide to invest in infrastructure projects in the grazing units over which they hold use rights. In both cases, it will be important that women's priorities are heard during the process and that infrastructure plans are gender-responsive. To this end, it is proposed that the manuals and guidelines be put in place for the local level pasture use planning and for PUU grazing unit management, including information on this topic.

Leasing of pastures. Outside community pastures, this Policy Document suggests that new criteria for leasehold allocation should be developed. Amongst these criteria, it is recommended that female-headed households be particularly considered in applications. For example, if a points system is put in place, then these criteria could add additional points to the application. If mechanisms for using leaseholds as bank collateral can be put in place, then this will also improve women's access to credit.

3.3 Institutions

3.3.1 Identity of state bodies responsible for pasture management

Figure 5 outlines a possible institutional structure for pasture management at the national and local levels. According to this scheme, the following is proposed:

The NFA and APA are currently responsible for pasture management on the land under their jurisdiction. Public pasturelands outside forest lands and protected areas are currently under the auspices of the NASP with partial involvement of NASLM. The NASP has a mandate for disposal of these pastures (through auction or direct disposal) but has no responsibility for pastureland management, assessment, planning, design of sustainable use measures, capacity building or support to users. On these state pastures there is thus a gap in terms of an institution which should manage these areas.

The 2019 law of Georgia on the Determination of the Designated Purpose of Land and the Sustainable Management of Agricultural Land[25] defines the status of the National Agency for Sustainable Land Management and Land Use Monitoring (NASLM).[26] This mandate includes agricultural land use planning and database management, avoidance and mitigation of land degradation and participation in establishment of administrative-territorial borders. This organization should thus be given a mandate over state pastures in the same way that the NFA and APA are responsible for those pastures over which they have jurisdiction.

This implies that the NASLM should take on not only the functions currently performed by the NASP, such as disposal to users, but also additional responsibilities regarding sustainable management of state pastures at the national and local level (see below). To this end the organisation will undertake to recruit representatives at the local level who can perform these tasks locally in each municipality.

Concerning those pastures are registered to municipalities, these will be managed by municipal governments in accordance with the nationally procedures and regulations defined by the NASLM.

3.3.2. Tasks at the national level

The NASLM should coordinate the national-level process of pasture categorisation and classification - including on municipal-owned pastures and state-owned pastures within protected areas, forest lands, and administered by autonomous republics. Other tasks include development of unified methodologies for pasture use planning at the municipal level, setting of carrying capacity of grazing units and for grazing unit planning where this is to be applied. These tasks should be conducted in cooperation with the NFA and APA (which already has significant experience in pasture classification, assessment and planning at various scales). The NASLM should also produce regulations, templates and protocols for pasture disposal, monitoring and extension including template contracts in the case of leasehold and template use rights agreements and internal charters in the case of PUUs. The APA and NFA are able to add conditions for

[25] https://bit.ly/3fn7GZ1

[26] The NASLM has become legally operational since January 1, 2020, through reorganization of the Agricultural Cooperatives Development Agency (ACDA), which existed as an LEPL under the MEPA.

pasture use appropriate to the pastures which they administer, to the use right agreements and leasehold contracts.

3.3.3 Tasks at the local (municipal) level

Pasture use planning (identification of users, pasture zoning and designation of grazing units), disposal to users, contracting, monitoring and support should be conducted at the level of the municipality (Figure 5).

These processes will be led by local representatives of the NASLM (and in parallel, on forest and protected lands by the NFA and APA). Many aspects, in particular user and grazing unit identification and pasture use planning, must be conducted in partnership with the municipalities, which have the local knowledge required. To facilitate this partnership, **Municipal Pasture Management Councils** will be established by the NASLM as advisory bodies whose function will be to facilitate pasture planning and pasture use coordination at the municipal level. The council would consist of the local NASLM representatives, staff of any other state bodies responsible for pasture in the municipality (APA, NFA), representatives from the NASP, representatives from the municipality and possibly local veterinary staff from the National Food Agency and, where appropriate, independent experts.

The core responsibilities of the council are to:

1. Develop recommendations for pasture zoning and grazing unit boundaries.
2. Advise on the tenure arrangements appropriate for each unit, in particular on remote summer pastures where there is most likely to be a mixture of CPRM and leasing.
3. Assess of claims over the pasture by traditional users with a view to PUU formation or leasehold allocation.

The subsequent disposal of pasture to users, oversight, monitoring and extension will be the responsibility of the state body to which direct management rights over pastures are delegated (NASLM, APA, NFA) or municipality under which the pasture is registered, but unified arrangements and methods, developed at the national level, will be employed.

Another important step at the local level will be the establishment and development of PUUs. Although these should be built on existing informal forms of common property use, the appearance of a formal version requires substantial investments. This should also be also done at the local level under the leadership of the NASLM, possibly with support from agricultural extension-related organisations.

3.3.4. External actors in pasture management and extension

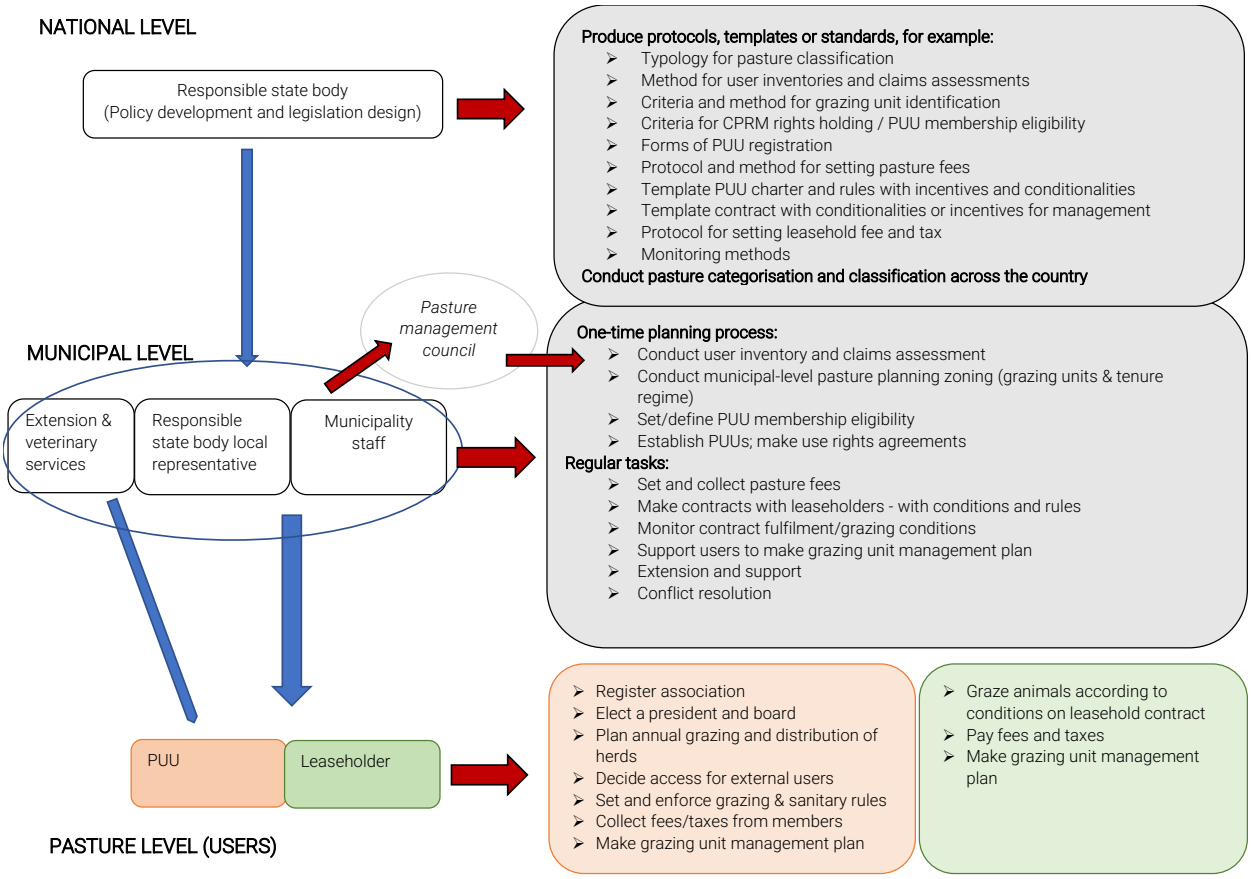
The establishment and capacity building of PUUs is a complex task. Thus, it may be necessary to delegate certain tasks to an external body. In international practice, the role of such partner organizations is usually performed by non-entrepreneurial (non-commercial) legal entities with field specialization that mobilize funds and resources from both the private sector and international donor organizations to implement activities to promote and strengthen pasture user associations.

The involvement of partner organizations in the implementation of pilot projects can be particularly effective. As for the evaluation and management planning works of their own pastures, they should be carried out at the initial stage by directly responsible state bodies - in accordance with standardized rules, procedures and approaches.

The NASLM may of course bring new capacity to the municipal level to conduct these tasks and the pasture management council may also identify additional local capacity. Future municipal pasture management commissions may also identify additional local opportunities.

In the mentioned process, it is recommended to use the information-consultative (extension) territorial network under the authority of the Rural Development Agency (RDA) at MEPA, with the involvement of the bodies responsible for pasture management, which, in turn, provides methodical support and promotion of information-consultative services for lease owners, associations of pasture users, and owners of privately owned pastures. One possibility is to train extension agents working for existing services in this work, using capacity such as that of the Rural Development Agency (RDA) and Scientific Research Centre of Agriculture (SRCA) at MEPA, which already provide technical support to Georgia's agricultural sector. At present, however, services are external donor-driven and not suited to the roll-out of a new system for broader pasture management and oversight.

Figure 5. Institutional arrangements for pasture management



4 Legal implications – what laws will be needed?

Categorisation of natural pastures in law

Because this concept proposes methods of disposal and management of pasture different from those on croplands, it is critical that pasture is categorised as a land use type separate to those of others – otherwise unique legislation applicable to those lands cannot be applied. This is even the case according to existing laws because the Law on State Property (2010) states that agricultural land (cropland and hay meadows) can be privatised, whilst pasture cannot (Article 4(1)). Thus, logically these areas must be spatially defined. The categorisation of pasture is ongoing (conducted by the NASP) but must be finalised before subsequent steps in pasture management can be achieved. The completion of this process and subsequent management of the information could be delegated to the NASLM.

Classification and zoning of pastures

In addition to the simple category of 'pasture', it will be required to define a number of more detailed pasture types (based on standardised vegetation cover types) with a view to pasture conservation and planning. Zoning into the village, near and remote summer and winter pastures will also be essential as

these types have physical and legal meanings in new legislation. Improved (sown) pasture is considered 'as pasture' in Georgian law but this type of land may also be treated in certain ways in terms of disposal and management. Thus, it may also be necessary to distinguish between these types of cultivated pastures, and natural grazing lands. Lands to be targeted by a new legal system for pastures.

The pasture management policy document and new legislation will apply to all publicly-owned pasturelands and haylands, regardless of which state or municipal authority administers the land. Each state/municipal responsible body would then apply the (unified) legislation on pasture under their jurisdiction, working with users on this basis. However, the specifics of pasture management within protected areas and on forest lands should be emphasized and special legislation governing protected areas and forests should be given priority in this regard.

Common elements and specific arrangements for responsible state/municipal bodies

In practise, what this is likely to mean is that the general principles of the law (pasture categorisation and classification, local level pasture use planning protocols and mechanisms of disposal to users) will be similar on all lands regardless of jurisdiction. However, during the identification of grazing units each state/municipal responsible body may exclude from grazing certain areas based on their own priorities which may include conservation concern or LDN target setting. The detailed conditions under which users will graze (enshrined in leasehold contract, use rights agreements and PUU rules and regulations) will differ from the basic template produced by the NASLM according to the priorities of the state or municipal body responsible for the grazing unit in question. Thus, each state/municipal body reserves the right to set the terms of those contracts themselves depending on their own management priorities based on unified model terms defined by the legislation.

Regarding private pasturelands, existing laws[27] can be used to purchase private lands into public ownership where common lands are insufficient or were privatised despite de facto use. Management approaches and extension materials developed for public pasturelands are to be applied to private lands on a voluntary basis, supported by local capacity of the NASLM, extension services or both.

Implications of a new Law on Pastures for existing legislation

An overarching Law on Pastures would thus override or rewrite existing arrangements for pasture disposal and management implicit in the following legislation:

- *Law on State Property (2010) and complementary secondary legislation*
- *Forest Code (2020) and, if appropriate, complementary secondary legislation*
- *Law on System of Protected Areas (1996) and complementary secondary legislation (e.g., Governmental Decree #125 of May 22, 2013 on Leasing in Protected Areas – repealed by Governmental Decree #235 of May 10, 2022 on Disposal and Special Use Rules in Protected Areas)*
- *Law on Determination of the Designated Purpose of Land and on Sustainable Management of Agricultural Land (2019) and, if appropriate, complementary secondary legislation*
- *Article 122 of the Local Self-Government Code (through which municipalities lease land) and, if appropriate, complementary secondary legislation*

[27] On Determination of The Designated Purpose of Land and on Sustainable Management of Agricultural Land

Depending on the regulatory scope of the new Law on Pastures, the following existing legislation should also be reviewed:

- *Tax Code (2010)*
- *Law on Development of High Mountainous Regions (2015)*
- *Food/Feed Safety, Veterinary and Plant Protection Code (2012)*
- *Spatial Planning, Architectural and Construction Activities Code (2018)*
- *Law on Public Registry (2008)*
- *Law on Recognition of Property Rights on Land Plots that are Possessed (Used) by Natural Persons and Legal Entities under Private Law (2007)*
- *Law on Procedure for Systematic and Sporadic Registration of Rights to Land Plots and Improvement of Cadastral Data (2016)*
- *Law on Conservation of Soils and Restoration and Improvement of Soil Fertility (2003)*
- *Law on Soil Protection (1994)*
- *Framework Law on Fees (1998)*

A Law on Pasture

The key norms of the new legislation (new legal framework) on sustainable management of pastures should be consolidated in one legislative normative act related to various aspects of sustainable management of pastures (management, use, protection/conservation). The new legislation on pastures must include the following elements:

Setting the scene

- Definition of which pastures are to be the subject of the law.
- Provisions for pasture categorization, classification and zoning where these are not included in existing laws.
- Definition of bodies responsible for pasture use planning, pasture disposal, management, monitoring and oversight at national and local levels (including provisions for creation of the pasture management councils).
- Outline of pasture use planning processes at local level including: referring to detailed bylaws on pasture zoning, user inventory, grazing unit designation and boundary setting.
- Basic criteria for selection of tenure arrangement on different classes of pasture, and referral to bylaw with more detailed guidelines.
- Procedures to allocate pastures for use at the between-municipal level (for long distance migrations)
- Stronger legal status and protection of stock tracks, including identity of responsible central state body managing and equipping these facilities.

User rights and disposal to users

- Description of the *forms of access* (tenure) for those pastures covered by the law.
- Arrangements for access under each of the tenure arrangements:
    - In the case of common property, as there is no current legal form for these arrangements, then the law should create the PUU as a legal entity, describe the legal forms under which it may be registered; set criteria for membership eligibility and specify the type of title

(use right) under which the PUU will access pasture. Much of the detail may be left to be elaborated in bylaws, such as a template charter and internal rules for the PUU.
  - In the case of leasehold, details should include criteria and process for leasehold award on pastures, which as suggested in this concept, should be different to those currently employed on other types of agricultural land categories.
- Provisions for the exchange of grazing rights between CPRM groups, between CPRM groups and external users, and between leaseholders. This is extremely important and reduced the need for illegal subleasing and other shadow arrangements.
- Rights and obligations of users.
- Arrangements for taxation and fee setting.

Secondary Legislation: Bylaws (subordinated normative acts)

All elements will require secondary legislation (bylaws/subordinated normative acts) outlining the procedures to be followed. These may include, but are not limited to:

- Bylaw defining model charter (statute) of the Municipal Pasture Management Council.
- Procedures for pasture use planning at the municipal level, including detailed guidelines for pasture zoning, user mapping, identification of grazing units and their assignment to different tenure types.
- Bylaw on PUU establishment and registration.
- Template PUU charter, internal rules and veterinary regulations
- Template use rights agreements between PUUs and responsible state bodies and pasture use tickets if these are to be applied.
- Bylaws for leasing arrangements may include template contracts with conditionalities, rights and responsibilities.
- Instructions for grazing unit management (by users) if this is required over and above the standard PUU rules and regulations or conditionalities in leasehold contracts.

Other required secondary legislation may include methods for the calculation of basic stocking rate norms, fee setting and protocols for pasture monitoring.

5 Economic and fiscal aspects of pasture management

This section covers the issue of tax, rents, and other forms of resource mobilization at the local and national levels. How these fiscal instruments are applied is hugely important to promoting effective pasture management. Reforms of existing schemes can greatly reduce the cost of reversing land degradation on pastures, by improving incentives for pastoral livestock owners to co-invest in the sustainable use of resources, as explained below.

5.1 General principles

The sustainable management of pastures can be considered a public good, in that many services are rendered to society through enhanced carbon storage, improved hydrological services, reduced erosion, enhanced biodiversity etc. These services are so-called externalities as they are provided ‘to larger society’ over and above the productive value of the land that livestock owners enjoy. Existing markets, fail to

reward and penalize land users, for the public good (or 'bads') they provide. There is consequently a need to correct such market failures to make existing markets work better.

Economic logic dictates that beneficial activities, such as sustainable land management that contribute to regenerating soil resources, should be encouraged, for example through subsidies. On the other hand, harmful activities that are leading to land degradation should be disincentivized e.g., through taxation. Fiscal instruments can thus be used to internalize positive and negative externalities. Fees and taxes could in principle, therefore, be set not only to cover the costs of administration of the resource alone, but also ensure that they vary in alignment with environmental performance.

5.2 Mechanisms for setting payments: rent, use right fees and tax

Reducing land tax or rents would go a long way to lowering pasture access costs, which have been shown by several studies to be too high, disincentivising good management. Payments on pastures are usually less than arable land for obvious reasons but this may mean that people lease pasture but use it as arable land. This is another reason why proper land categorisation and registration must be accurate, as this makes monitoring proper land use compliance much easier.

Provisions for land (property) tax are set in the 2010 Tax Code, whilst new provisions for leasehold and permanent use rights on pastures will be developed in the new legislation on pastures. As with agricultural cooperatives, land (property) tax exemptions could be applied to PUUs, particularly during the first years of their formation, through an amendment to the 2010 Tax Code.

Fees for use of pasture will be paid in the form of rents by leaseholders and use rights payments for PUUs. From mid- and longer-term perspectives, the use rights payments will form part of PUU membership fees which also will include land (property) tax and additional payments to the PUU to cover costs (herding, infrastructure) which are agreed upon each year by the PUU members in their meetings. The part remaining with the PUU may thus differ every year depending on activities and investments. These payments are generally split between members on a pro-rata basis according to livestock ownership (see below).

The base costs for rents and pasture use payments should be set by the Government of Georgia according to unified national guidelines to be developed by the NASLM. Prices could depend on a mixture of pasture quality (productivity), accessibility, length of time spent on the pasture, available infrastructure on the pasture and, where applicable, geographical location. Alternatively, they may be set according to market conditions – including current land lease rates on private grazing land, beef cattle prices, and the costs of livestock production. In such a case, the fee changes based on market conditions – so in a year with very expensive feed and diesel the price may decrease.

There is an argument that PUU use rights payments should be lower than leasehold rents as many potential PUU members currently pay nothing and incentives are required to establish and run these organisations. Low use rights payments would allow more funds to be raised for the PUU itself – commensurate with their responsibilities for management and infrastructure maintenance. Use rights payments could even be entirely eliminated – in which case pastures under CPRM would be provided in perpetuity (*perpetual usufruct or possession*) without charge to the PUUs. Alternatively, (as mentioned above), PUU pasture access costs could be lowered through pastureland (property) tax exemptions alone.

5.3 Unit of payment: by hectare or livestock unit

Payments by area in extensive pastures can be problematic because a livestock producer may lease a small amount of land around their barn or camp and then use a much larger area of land for grazing. They are a disincentive to livestock movement (lease of multiple pastures) and to rotational schemes where a proportion of pasture may be set aside (as the lessee is still paying for this unused pasture). These issues are of less concern where land boundaries are physically delimited, as in many lowland areas where pastures may be more intensively used and fenced.

Paying per head of animals brings the overall payment much more closely in line with the users' real economic gain and impact on the resource. This is also a mechanism for automatically assigning lower payments to smaller users, perhaps eliminating the need for different rates for PUUs and leaseholders. There is of course a disincentive to report livestock numbers, but proper application of livestock identification schemes should render this very difficult.

One mechanism for PUUs to recover costs by livestock unit is the **pasture ticket**. The price of a ticket is set annually as the total cost of the pasture use (property tax plus use fee plus maintenance and shepherding) divided by all the animals planned to be on the pasture that year. If the number of grazing stocks is lower than carrying capacity (the maximum number of tickets issuable on that unit), then additional tickets may be sold to outsiders. This mechanism is exactly the same as levying PUU membership fees by livestock unit but reinforces the idea of the grazing right as a saleable unit.

5.4 The case for using green fiscal policy

To date, green fiscal policies have been underused for land use management. However, there is a growing body of evidence demonstrating the effectiveness of using green fiscal policies for sustainable land uses. This has also led to a growing interest amongst policy makers to use such instruments as a way to better influence land management, whilst raising revenue for policy implementation. Examples of fiscal reforms that could positively influence pasture management in Georgia while freeing up resources to be used for policy implementation and national development include:

At the national level:

- Ecological fiscal transfers from the central state budget to municipal budgets in which more money is allocated to municipalities whose pastoral and land resources are better managed.
- An agricultural subsidy reform which rewards the sustainable management of farmland, forests and pastures, achieving better environmental results.

At the local/municipal level:

- A fee-and-rebate mechanism, which offers rent (fee) discounts for livestock owners who meet a minimum required sustainability standards – such as rotations or set-asides, or de-stocking.
- Leaseholders of state and municipal-owned agricultural lands are required to have their soils tested every five years for organic carbon content. Some form of rebate or payments could be linked to this process, if it is actually conducted in reality and if sampling is designed to fairly reflects the average of the area concerned.

5.5 Destination and use of fees

Property tax on pastureland goes to the municipality. Rents and use rights payments should accrue to the responsible state body or municipality having jurisdiction over the pasture. These funds can be used to finance administrative costs or used to invest in pastures at the local level. Some proportion could even be returned to PUUs as matching funds (for example by application and competitions), to be used for investments with which they identify themselves.

5.6 Development of a fiscal policy for pastures

During the process of legislative development, an economic analysis should be conducted to explore mechanisms to set payments, considering pricing in private markets, the internalization of externalities and possibly including an assessment of the fee setting mechanisms already applied in protected areas, which are often conducted by audit companies. Base rates may then be adjusted to create incentives or sanctions depending on management actions or compliance with grazing rules. The study should also look at the consequences of different payment modalities (per head or per hectare) and of differentials in costs for common and leasehold grazing units. It should also assess the potential to apply green fiscal policy.

6 Sustainable systems for pasture management

This section covers mechanisms for building sustainability into pasture access and management systems. These include the setting of norms and rules for use, pasture assessment and monitoring systems, planning, and LDN target setting and implementation. These mechanisms will differ somewhat for the two main forms of the pasture property rights system and will also depend on the institutional arrangements.

Pasture use planning and monitoring at the user level

Systems for sustainable pasture management have a number of levels or components. The first and second are the set of rules for pasture use and their enforcement, and the third relates to monitoring of the actual condition of livestock grazing, vegetation and soils. There must of course be some feedback between these levels, as the results of field monitoring and assessments may be used to set norms in the first place.

- *Level 1. Setting of rules and norms for grazing by leaseholders and PUUs*. These could include carrying capacity, grazing rules such as migration dates and rotation, activities such as fertilisation, compliance with veterinary rules and other conditions set by the state or municipal body

administering the pastures. Such rules could be considered as elements of a pasture use 'plan' although this may not be an explicit document. The contents of the rules (what they should include) will be elaborated at the national level. But the pasture-specific details are to be elaborated at the local level by the representatives of responsible state/municipal bodies or the municipal-level pasture management council, in consultation with the users themselves. Thus, rules and norms for grazing on lands administered by the APA, NFA, the NASLM or municipalities will differ from each other and it is for this reason that each agency or municipality will be responsible for developing a set of basic rules and norms on the pasture under their administration. These rules should then be reflected in leasehold contracts and in PUU internal regulations; PUUs will then add more detailed rules to their internal regulations as required.

- *Level 2. Monitoring and enforcement of (or incentives for) adherence to rules and norms.* Here, a system of sanctions for rule-breaking could be included, which could include fines or exclusion from the pasture.
- *Level 3. Resource assessment and outcome monitoring - regarding the condition of livestock, pastures and soils.* This level may range from visual observation of vegetation and livestock condition by experienced users, to more detailed scientific monitoring of vegetation and soils over time. In this concept, we focus on vegetation assessment with a set of standard indicators, used to support grazing management, set targets and assess progress toward achievement of Land Degradation Neutrality.

These levels overlap and meet in the case of LDN target setting, spatial planning and local-level pasture management planning, which should logically all be part of the same process. In the case of PUUs, the first two levels and to some extent the third could be partly carried out by user groups themselves as these fundamentally control the number of stock contributed by each member to overall stocking rates.

Levels 1 & 2: rule setting and enforcement

There are different ways of ensuring sustainable grazing over the long term. Some countries set standard carrying capacities or grazing periods for specific vegetation types, others for each grazing unit (areas used by a single herd or user group). But these must be adaptable to poor years and climate change. Rules may also include fertilisation and rotation requirements within the pastures used.

Norm-setting and enforcement of carrying capacity by users

Long-standing CPRM systems have traditionally set their own rules for grazing, such as dates for transhumance and overall maximum stocking rate (carrying capacity) for the pasture in question. These norms were set through experience and observation of animal and vegetation condition (Stevenson 1991). More recently, formal vegetation assessments by experts have also been conducted upon request of PUUs and the results used to set more exact or updated grazing norms. In terms of carrying capacity, the question is then how this overall quota is shared between group members and how it is enforced. Pasture users in true CPRM systems have a limited membership and the ability to exclude others. **It is this exclusion, together with their internal assessment of resource condition, which is the basis for sustainable pasture management.**

This is more cost-effective than external monitoring but in cases where PUUs are institutionally weak or themselves hold numbers of livestock too large for their own grazing unit, then oversight at the municipal level may be essential.

Norm-setting and enforcement by state or municipal body responsible for the pasture

Pasture norms and regulations may also be set externally by the state-responsible bodies themselves. The most obvious way in which these may be applied is through leasehold contracts and use rights agreements. In the case of PUUs, these rules can also then be used as the basis for PUU internal regulations with additional oversight by the responsible body.

Regarding leasehold contracts used on pastures in Georgia, only those administered by the APA currently impose real management rules, which include stocking rates, pasture fertilisation and some form of rotation. Those administered by the NASP are generic for agricultural land use and other than requiring soil analysis test every five years, do not include conditions or guidelines specific to grazing. Contracts with municipalities are even more general whilst those with the NFA (for special use) concern conditions appropriate for forest management rather than grazing. At the national level, the APA, NFA and NASLM should produce template leasehold contracts and use rights agreements appropriate for the lands under their jurisdiction, leaving flexibility for each contract to be adapted to locally specific conditions. Municipalities, which do not have national representation, should use templates provided by the NASLM for municipally registered pastures.

In order to monitor compliance, the responsible state body or municipality must have adequate staffing at the municipality level, requiring investments as part of a long-term vision for pasture management.

Grazing unit management plans

There is a continuum between the inclusion of a number of relatively simple rules and conditions into a CPRM use rights agreement or lease contract (as discussed above) and the legal requirement for more complex plans for each individual grazing unit. We will call these *grazing unit management plans*, to distinguish them from the much broader *pasture use plans* conducted at the municipal level and concerning the designation of pastures to specific classes and tenure regimes.

Grazing unit management plans may include a full pasture vegetation cover botanical description and productivity assessment (biomass determination) , details on grazing sectors and herd locations (if there are multiple herds), annual or short-term rotations, water supply and infrastructure development. If they are mandatory this can create significant bureaucracy both on the part of the PUUs or leaseholders themselves and the state/municipal responsible bodies who must support users to produce them. It must be assumed that, at least in the short term, the state/municipal responsible bodies and users will not have the capacity to produce such documents.

Therefore, for the purposes of this concept it is proposed that in the first instance, a set of simple rules are put in place, and that more detailed grazing unit management plans should come later, depending on the resources to support their development and to evaluate them in a meaningful way.

Vegetation assessment and carrying capacity

Monitoring of pasture resources may be necessary both to establish grazing norms (capacity) and to assess changes and management outcomes.

Determining the capacity of the pasture is necessary to determine the upper limit of the amount of livestock allowed on the agricultural units of the pasture.

For pastures within some protected areas, the Agency of Protected Areas, with the support of international donor organizations, has established carrying capacity norms using various methods of detailed assessment of vegetation cover and food resources and reflected them in the contractual conditions of the lease concluded with the beneficiaries.

In this regard, it should be noted that there is a widespread practice in a number of countries, according to which the legislation establishes standardized norms or standardized methodologies for capacity calculation.

However, there are a number of issues that need to be taken into account when using strict capacity norms as a management tool:

- In dry (low-rainfall) regions, both rainfall variability and pasture productivity are highly variable, and it is more reasonable for users to not only maintain the fertility rate (which will be high in some years and very low in other years), but also to adapt to the effects of grazing (overloading of pastures). with changing conditions.
- Measurements related to determining capacity have a huge margin of error, which is why different estimates of the same pasture can be radically different.

An assessment of vegetation conditions should be part of the pasture use planning process in each municipality. This is essential so that the disposal of grazing rights can be conducted in a way which reverses or avoids degradation. A methodology for this process has been developed, employing global remotely sensed databases of the LDN indicators of land cover, vegetation productivity and soil organic carbon. Use of these, combined with limited ground truthing, indicates trends in pasture condition over time and allows identification of degradation hotspots. The data from remote sensing are triangulated through stakeholder analysis during the planning process and the results are scaled up to cover the municipality as a whole. By identifying the condition and productivity trend of each grazing unit, recommendations for their use (for example regarding grazing periods, exclusion of stock, reduction or increase in stocking rates) can be applied during planning in order to achieve overall degradation neutrality at the municipality level.

In addition to the above process, which requires relatively little in the way of ground measurements, Georgia may eventually like to conduct more detailed vegetation assessments (including ground-based measurements of productivity and biomass measurement) with a view to calculating the carrying capacity of each grazing unit. But such field measurements are expensive as they involve biomass collection, separation of edible parts and measurement of the feed value of that fraction, in different seasons of the year. In the short term, it will be more pragmatic to assign carrying capacity guidelines for grazing units based on a mixture of recently available data (existing for some national parks), older Soviet norms, and local knowledge, including mechanisms to take changing conditions into account. The process of vegetation classification into nationally-standardised cover types will be helpful in this regard. A more user-oriented method for estimating the maximum stocking rate of a grazing unit is described in the above-described manual . Based on existing knowledge of the amount of pasture required to feed a single animal, it is likely to be a cost-effective and practical way of setting sensible stocking rates based on actual experience of pasture users.

Long-term monitoring

Vegetation assessments will be needed for long-term monitoring, to measure the effects of grazing, to standardize livestock density norms in different locations, and to assess land degradation. However, as mentioned above, it would be practically impossible to carry out detailed assessments on a regular basis across the country.

It is recommended that the assessment of the vegetation cover be carried out as a priority in the protected areas. To date, several methods have been tested by the Protected Areas Agency, some of which may be used by the National Agency for Sustainable Land Management and Land Use Monitoring on pastures outside protected areas. Appropriate personnel training is required for the utilization of existing methods of vegetation cover assessment on pastures. One possibility is to create a special service in the Agency of Protected Areas, which will be responsible for the assessment and monitoring of pastures. The mentioned issues should also be taken into account by the National Agency for Sustainable Land Management and Land Use Monitoring because the agency will have to create a similar specialized structural unit.

It is worth noting that "quick and easy" methods of pasture vegetation assessment and measurements, such as photo monitoring, transects and telephone applications, have been successfully tested in a number of countries.

An important task of the permanent pasture management policy will be the selection of a national framework for observation and monitoring of the condition of pastures - with the possible use of pasture user-oriented methods.

7 Principles

The National Pastureland Management Policy Document is based on the two overarching principles of *environmental sustainability* and *social justice*. This means that pasture use mechanisms should favour long-term sustainable use whilst at the same time supporting pasture use as a source of food security and economic benefit for livestock producers of all types.

These overarching principles can be broken down as follows:

- It should be recognized that pasture allocation to users, **the land tenure system, is the primary factor in pasture management.** This step determines how grazing occurs on the landscape or ecosystem scale. This is particularly important in the context of mobile systems, in which users require access to multiple pastures in different areas, and in the context of fluctuating user populations and climate change, where flexibility will be required.
- Following from the above, pastoral tenure and management systems, and the laws required to regulate them *must be different to those on croplands.*
- All livestock owners using pastures under informal arrangements should be able to formalize their access to it, through leasehold or common property arrangements and in legally eligible cases through private ownership as well. No livestock owner should be left with informal access which they cannot legitimize, prove or legally defend.

- The state must make a decision as to whether to protect traditional users from land speculation through common-use regimes based on inalienable rights. This document is based on that principle. Thus, during pasture allocation, existing users and local residents should be prioritized before absentee applicants and external companies.
- But beyond this, principles of supply and demand are applied to grazing. Stocking loads can be efficiently matched to available pasture using market mechanisms and reducing transaction costs to a minimum. This means an easy transfer of leaseholds between farmers, and of livestock grazing rights between CPRM groups and between these groups and non-members wishing to graze. Such transfers are fundamental to the economic and environmental efficiency of pasture management.
- Both allocation and management of pastures should as **much as possible be undertaken at the local level**. This facilitates use of knowledge of existing users, adaptation of allocation mechanisms to actual use patterns and real-time information needed for application of sanctions.
- Whatever system is in place, it should reflect how pastures are actually used on the ground across the country. This means that, if pastures are used in common or the population of rural settlements (villages) graze herds collectively, then the property rights system should reflect this. If they are used individually then it may be preferable to introduce mechanisms adapted to such use i.e., more individualized property rights may be appropriate.

8 Sustainable Pasture Management Priorities

The major steps towards sustainable pasture management in Georgia are outlined below:

1. **Defining and mapping the area and types of pastures in Georgia.**

(i) Identification and categorisation of pastures and haylands at the national level (assignment of the pasture or hayland category to all relevant agricultural land plots), and inclusion of this information into the national register. Identification and categorization should cover both unregistered and state or municipally owned and therefore already registered plots of land that are registered in the public register as agricultural land without specifying the land category (pasture, mowing, arable land, etc.).

(ii) Development of nationally defined standard cover type descriptions for pasture classification.

(iii) Typological classification and mapping of pastures into cover types using the nationally defined standard cover type descriptions.

(iv) Zoning of pastures into village pastures, winter pastures and near and remote summer pastures (see pasture use planning, below).

(v) Assessment of pasture degradation state and trends at the municipal level according to the sub-indicators of the SDG 15.3.1 goal (land cover, land productivity and soil organic carbon).

2. **Additional analysis and piloting for legislative development:**

Many of the mechanisms for the new pasture management and tenure arrangements require deeper consideration and analysis, as well as testing through pilots, which include:

(i) Assessment of mechanisms to set payments for pasture use, considering pasture type and quality, pricing in private markets, payment modalities and application of green fiscal policy.

(ii) Piloting of mechanisms for key aspects of pasture use planning: pasture zoning, user inventory and definition of grazing units.

(iii) Development and testing of criteria for CPRM establishment and membership, legal form and institutional mechanisms for ensuring support and capacity building.

(iv) Development of criteria for leasehold allocation including specific pre-emptive rights in some cases and cases for repeal of existing leaseholds in cases of public interest. This analysis should also include assessment of potential mechanisms allowing for leaseholds to be used as loan collateral.

3. Legislative development

(i) New legislation should create the basis for a set of unified arrangements to be applied to all pasturelands including property rights regimes specific to pastures and national and local institutional arrangements necessary to oversee management.

(ii) Bylaws (subordinated normative acts) will be developed to provide more detailed regulations for the new arrangements and processes including pasture use planning and PUU establishment. These will include:

- Procedures for establishment of municipal-level pasture management council and template statute or these organisations.
- Procedures for pasture use planning at the municipal level, pasture zoning, user inventory and identification and mapping if grazing units and their assignment to different tenure types.
- Procedures for assessment of traditional claims to pasture and for establishment of PUUs.
- Template use rights agreements between PUUs and responsible state bodies (and pasture use tickets if these are to be applied).
- Template PUU charter, internal rules and veterinary regulations
- Template leasing contracts.
- Detailed regulations for running application/auction process for leasing on pastures.

(iii) The legislation and bylaws will form the basis for the formulation of a full Strategy and Action Plan for pasture management, which will represent the major implementation instrument for pasture management.

4. Elaboration of more detailed methodologies and protocols in the form of manuals or guidelines:

(i) Elaboration of a protocol for pasture use planning at municipal level including criteria for identification of grazing units and assessment of user claims.

(ii) Design of a national pasture assessment and monitoring framework including methods to be used at different levels and assignment of responsibilities.

(iii) Manual for grazing unit management by users if required over and above PUU rules and regulations or conditionalities in leasehold contracts.

5. Pasture use planning process at the municipal level.

The first stage of field implementation of the new arrangements is local-level pasture use planning which includes:

(i) Zoning of pasture into village pastures, winter pastures and near and remote summer pastures.

(ii) Inventory of users grazing in the municipalities and assessment of traditional claims to pasture with a view to PUU establishment and membership

(iii) Delineation of grazing units according to pasture class and vegetation, natural boundaries, cohesive user groups (identified above).

(iv) Assessment of pasture type and condition on grazing units; assignment of maximum stocking rates and identification of areas to be ungrazed if necessary. For the APA and NFA additional specific conservation measures may be required.

(v) Assignment of grazing units to individual lease and/or CPRM.

(vi) Results of the planning process in terms of grazing unit boundaries, their land category, pasture class and zone, and identity of users, should be generated based on pre-prepared interactive maps.

6. Disposal of pasture to users

(i) Establishment of PUUs at the level of villages and transfer of management of grazing units on village pastures, near summer pastures and remote pastures to be managed under CPRM, to these groups.

(ii) Conclusion of user rights agreements with PUUs

(iii) Opening of leasehold auctions or application processes for grazing units to be leased.

(iv) Conclusion of contracts with leaseholders.

7. Extension and support to users (concurrent with above)

(i) Support provided to PUUs for formation, registration and financial management.

(ii) Support provided to PUUs and leaseholders for grazing unit management and planning

8. Monitoring and assessment

(i) Oversight of members by PUU

(ii) Annual grazing management and investment planning by PUUs and Leaseholders

(iii) Monitoring of user compliance by responsible state body or municipality

(iv) Long term monitoring of pasture condition

9 Implementation

Phase I. Endorsement of the Policy Document (Concept)

1. Strategic Environmental Assessment

Strategic Environmental Assessment (SEA) of the Policy Concept will be prepared before formal endorsement of the document as per requirements set for by Georgia's legislation (Environmental Assessment Code of 2017) for policy/strategic documents.

The SEA process will include scoping, the preparation and review of an SEA report and public consultations. These will be taken into account during the assessment of the Policy Document and decisions provided to the public and concerned agencies and municipalities.

The purpose of the SEA will be to: a) minimise adverse effects on the environment and human health; b) ensure public participation in the preparation and adoption/approval of the policy document; c) take account of environmental and human health aspects in the decision-making related to the policy document; and d) perform a transboundary environmental impact assessment procedure in the process of the decision-making related to a strategic document, where relevant.

2. Formal Endorsement of Policy Concept

Endorsement of Policy Concept will be arranged through the Intersectoral Governmental Working Group on Pastures which has been created as the consultative body at the Ministry of Environmental Protection and Agriculture (MEPA) in accordance with formal rules and procedures under Georgia's legislation for endorsement/approval of policy documents (policy concepts, strategies etc.).

Phase II. Legislative development

3. Additional analysis for legislative development

The assessment of mechanisms to set payments for pasture use; development of arrangements for PUU establishment, legal form and capacity building, and determination of new arrangements for leasehold allocation should be led by NASLM in consultation with stakeholders and the Intersectoral Governmental Working Group on Pastures. These tasks will draw on the pilot pasture management projects in the field, involve detailed consultations with experts and lawyers on tax arrangements and laws on associations in Georgia and should also review payment and leasehold allocation mechanisms in other countries.

4. Drafting and passing new legislation

The process of legislative development will engage lawyers to work on new legislation, in consultation with the Intersectoral Governmental Working Group on Pastures. Preparation of new legislation and its validation have to be followed by development of regulatory impact assessment (RIA) on draft legislation on pastures.

The RIA is a tool for evaluating the various alternatives (options) developed to solve specific policy issues. This is applied when a new regulation has been drafted and there is a need to assess its potential impact on stakeholders. RIA's aim is to improve policy-making procedures through the utilization of various approaches, such as openness, public involvement and accountability. The focus of the RIA is dependent on the stage of the law-making process and is directed at improving the quality of governance by increasing the transparency and legitimacy of the regulatory process. Georgia currently uses RIAs to support its decision-making processes.

The objective of the RIA on new pasture-related legislation will be to evaluate the social, environmental and economic impacts of the draft legislation by conducting a cost-benefit analysis, alongside a multi-criteria analysis. It will be possible to apply also so-called "RIA+" methodology, which considers the principles of the UN's 2030 Agenda for Sustainable Development, and the impact of the proposed regulation on achieving relevant Sustainable Development Goals (SDGs). The RIA's purpose will be to contribute to evidence-based, accountable policy-making.

Submitting of the draft legislation to the Parliament of Georgia for final approval will be preceded by wider public disclosure and review of the draft, including the RIA.

Phase III. Preliminary steps for full-scale transition

Elaboration of a strategy and action plan will be needed to ensure gradual and full-scale implementation of the enacted new legislation on pastures. In this regard, a pasture related amendment will be prepared to be integrated into the existing *Agricultural and Rural Development Strategy of Georgia for 2021-2027*[28] and its *Action Plan*.[29]

The said amendment, *inter alia*, will focus on a precise action plan in order to ensure a full-scale and consistent implementation of the new pasture legislation. A timescale will be prepared on the basis of appropriate and transparent criteria.

The transitional part of the new legislation will serve as a basis for development of the Strategy and Action Plan. The amendment to *Agricultural and Rural Development Strategy of Georgia for 2021-2027* and its *Action Plan* will provide for 'implementation programme' of the new legislation. This will allow sufficient time to give all affected actors and stakeholders time to adjust to the planned changes and meet requirements of the new legislation. The most important elements will be administrative, institutional, financial and technical measures aimed at phased application of the new pasture

[28] *Agricultural and Rural Development Strategy of Georgia for 2021-2027* // Approved by the Government of Georgia - Ordinance No.2665 of 20 December 2019 / Effective from January 01, 2021 – *Georgian and English Versions*.
http://gov.ge/files/524_74660_648714_2665.pdf
https://eu4georgia.eu/wp-content/uploads/Agriculture-and-Rural-Development-Strategy-of-Georgia-2021%E2%80%932027.pdf

[29] *Georgia's Agricultural and Rural Development Strategy's Action Plan for 2021-2023* // Approved by the Government of Georgia - Ordinance No.2665 of 20 December 2019 / Effective from January 01, 2021- *Georgian Version*.
http://gov.ge/files/524_74660_648714_2665.pdf

legislation. Among these measures there will be a number of preliminary steps necessary to be implemented before full-scale transition – see below.

5. Defining, mapping and assessment of pasture in Georgia

Identification, categorization and classification of pasture should be a national-level process conducted by the NASLM, which will create a spatial database for the information. The most urgent task is the categorisation of pastures and haylands and inclusion of this information in the state land register.

The more detailed development of pasture classes is less urgent but will remain useful for municipal level pasture use planning, elaboration of contracts with users and development of rules or plans for grazing units - as classification will facilitate the estimation of stocking rate guidelines to be assigned to each type. These classes must also be developed and mapped by a the NASLM using standard methods developed at the national level.

The second important prerequisite for planning the use of pastures at the municipal level is the assessment of the state and trends of pasture degradation, for which it is recommended to use the sub-indicators of the goal of SDG 15.3.1 (land cover, land productivity and soil organic carbon). The assessment of the pasture degradation trend will be carried out in coordination with the NASLM, according to the standard method developed at the national level.

The zoning into village, near and remote summer, and winter pastures will be part of the local pasture use planning process conducted by both state responsible bodies and the municipality.

6. Elaboration of more detailed methodologies and protocols in the form of manuals or guidelines

For municipal level pasture use planning, preliminary methods will be developed by RECC through pilot projects. These methods will then be used to develop a protocol for the process including pasture assessment, zoning, user inventory and claims assessment, and identification of grazing units.

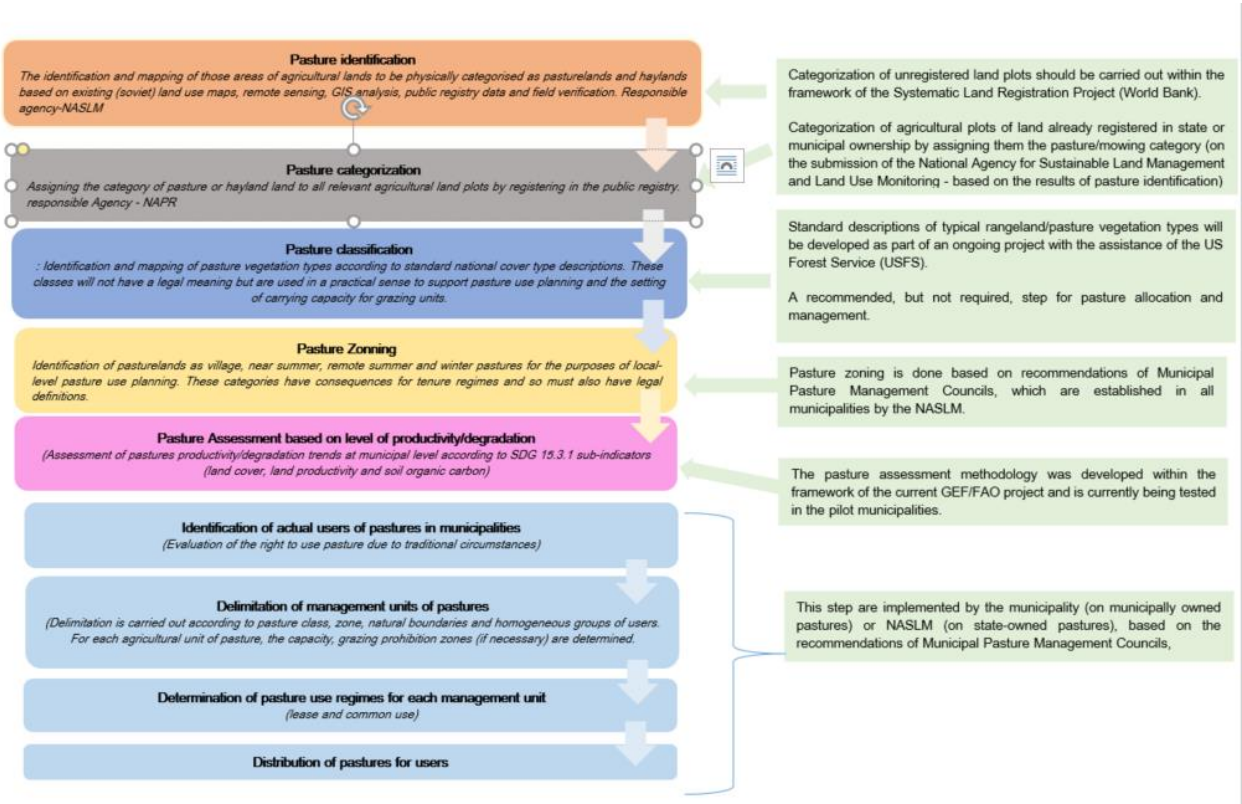
The NASLM will be responsible for the design of a national pasture assessment and monitoring framework, and guidelines on grazing unit management for users should also be developed by the NASLM.

7. Pasture use planning process at the local (municipal) level

Pasture use planning, including identification of traditional users, delineation and assessment of units to be grazed corresponding to village, summer and winter pastures, assignation of land tenure regimes and rights holders, will involve all state responsible bodies holding pastures in the given municipality, and staff assigned from the municipality government to support the process. These concerned bodies will form municipal pasture management councils for the coordination of these tasks under the leadership of the local representative of the NASLM. The preparation of a spatial database holding results of the process, and related interactive maps, is the responsibility of the NASLM.

The sequence of preliminary steps required for full-scale implementation is outlined in the diagram below (see Figure 6).

Figure 6. Scheme of actions to be implemented



<u>Phase IV. Full-scale implementation</u>

8. Disposal of pasture to users

Concerning conclusion of user rights agreements and leasehold contracting, the process should be run at the local level by the responsible state/municipal body in question, with contracts and agreements to be made between users and the agency or municipality having jurisdiction over the pasture. Solutions will need to be sought where multiple agencies hold land on the same grazing unit. These could include multiple contracts or one contract with different cadastral parcels listed.

9. Extension and support to users (concurrent with the above)

The NASLM should be responsible for organising ongoing extension and support to leaseholders, PUUs and private pasture owners, but some aspects of this could theoretically be contracted to external providers of extension services.

10. Monitoring and assessment

The state responsible bodies for pasture management will be responsible for the monitoring of user compliance on the pastures over which they are responsible (so following contracting responsibilities).

Concerning long-term monitoring of pasture condition this will be conducted by NASLM following methods described in the pasture assessment and monitoring framework.

10 Term of Validity and Implementation Deadlines

The concept will be valid until the new pasture legislation (followed by an amendment to the existing Agricultural and Rural Development Strategy of Georgia for 2021-2027 and its Action Plan) has been approved.

The following indicative deadlines are proposed for implementation:

Implementation Phases	***Implementation Steps***	***Indicative deadlines for completion and/or commencement***	***Responsible Body***	***Comment***
Phase I. Endorsement of Policy Concept	1. Strategic Environmental Assessment	Q3 (2022) *[completion]*	FAO/RECC (GEF Project)	
	2. Formal Endorsement of Policy Concept	Q4 (2022) *[completion]*	MEPA	
Phase II. Legislative development	3. Additional analysis for legislative development	Q4 (2022) *[completion]*	MEPA (NASLM) in cooperation with MESD (NASP) and Ministry of Finance	
	4. Drafting (incl. RIA) and passing new legislation	Q3/Q4 (2023) *[completion]*	a) *Drafting:* FAO/RECC (GEF Project) b) *Governmental Review:* MEPA and other line ministries c) *Submission to Parliament:* Government of Georgia d) *Passing:* Parliament of Georgia	
Phase III. Preliminary steps for full-scale transition	5. Defining and mapping the area and types of pasture in Georgia (identification and categorization of pastures and reflection of the obtained results in the land cadastral database of the public register,	Q2 (2024) *[completion]*	MEPA (NASLM in cooperation with APA, NFA), MESD (NASP), Municipalities and Local (Municipal) Pasture Councils	Within the framework of the "Systemic Land Registration project", which is currently being implemented by the World Bank, the indication of the category (pasture, hayland, arable, homestead) should become a mandatory

	classification and assessment of pastures)			requirement for the registration of agricultural land. Accordingly, identification and categorization of unregistered pastures/grasslands will be done within the framework of the "Systemic Land Registration Project". At the same time, the process of categorization of land plots already registered in state or municipal ownership should be carried out. It is important to develop a rule and criteria for identifying and categorizing pasture/grassland, which includes criteria and a procedure for assigning a pasture/grassland category.
	6. Elaboration of more detailed methodologies and protocols in the form of manuals or guidelines	Q3 (2024) *[completion]*	MEPA (NASLM in cooperation with NASP, APA, NFA) FAO/RECC (GEF Project)	
	7. Pasture use planning process at the local (municipal) level	Q4 (2024) *[completion]*	MEPA (NASLM, APA, NFA) and Municipalities	
Phase IV. Full-scale implementation	8. Disposal of pasture to users	Q2 (2025) *[commencement]*	MEPA (NASLM, APA, NFA) and Municipalities	
	9. Extension and support to users	Q3 (2025) *[commencement]*	MEPA (NASLM. RDA with involvement of APA, NFA)	
	10. Monitoring and assessment	Q4 (2025) *[commencement]*	MEPA (NASLM, APA, NFA) and Municipalities	

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