

Pastoral Land Reform in Turkmenistan

The management of state-owned pastures in France: an exposure visit

21-27 May 2018

Реформа пастбищных земель в Туркменистане

Управление государственными пастбищами во Франции: Ознакомительная поездка

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Executive Summary

In the framework of a programme to support pastoral land reform in Turkmenistan, a delegation from that country visited the department of Ariège in the French Pyrenees. The delegation included representatives from the Ministry of Agriculture and Water, the State Committee for Environmental Protection and Land Resources, as well as staff and consultants from the GIZ Sustain-CA programme in Ashgabat.

The main aims of the visit were:

- To familiarise participants with pastoral tenure and management systems in the Pyrenees, including the structure and function of pasture user groups.
- To introduce participants to both governmental and non-governmental services supporting the livestock sector and to explain their role in pasture management, extensive livestock production and disease control.

The visit included meetings with representatives of the state in Ariège; with public bodies providing technical services to pasture users; and with two groups of livestock owners, together with staff from municipal councils in the pastoral areas which they use and manage.

In Ariège, most winter pastures are located in valleys on privately owned land, whilst animals graze on common lands belonging to the state or to the commune (gengesh equivalent) in the summer. Grazing on these common pastures used to be co-ordinated by local municipal (commune) councils. However, where livestock producers are poorly represented on these councils, the 1972 Law on Pastures enables the transfer of pasture management to the users themselves, organised into Pastoral Groups (GPs). These groups hold nine year pasture use contracts either with the National Forest Office (ONF) which manages state owned pastures, or with landowning communes. These contracts outline the rights and responsibilities of users regarding pasture management.

Livestock owners have a guaranteed right to graze their animals within the boundaries of their commune of residence, a traditional right which was codified in the 1972 law. Therefore, GP membership is often based on livestock owners of a single commune. However, the system is flexible. GPs may use pastures within several communes; allow outsiders to graze livestock if there are enough pastures to support them; or hold use contracts for pastures far away from their home commune. 'Outsiders' may come from neighbouring communes or other regions of France many hundreds of kilometres away. These arrangements lead to an even grazing pressure on pastures.

GPs are registered under the Law on Associations and each has an elected president and board, a statute and internal sanitary regulations. The general assembly meets at least once per year. GPs manage infrastructure projects on their common pastures, arrange shepherding and set dates of pasture use. They also have a role in disease control, being responsible for ensuring that all animals in the group conform to sanitary regulations.

State representatives at the departmental (oblast) level, responsible for agriculture (the DDT), public health and safety (DDSCPP), and for state lands (the ONF) respectively provide accreditation for GPs, set rules and procedures for disease control and oversee environmental regulations in pastures. However, when pastoralism is regulated by the state and codified in laws, many pastoralists find the resulting bureaucracy difficult to deal with. For this reason a number of organisations exist which can liaise between livestock owners and state institutions.

These organisations include Pastoral Federation and the Chamber of Agriculture. All GPs are members of the Pastoral Federation, which provides them with technical support for infrastructure development, funding applications, employment of shepherds, mapping and pastoral land use planning. These plans include an inventory of vegetation resources, grazing schemes and timetables and infrastructural status and development. They are made on request and GPs are not legally bound to use them. If there is no plan, then the experience of the pastoralists plus the standard state regulations and terms of the pasture use contracts are usually enough to properly govern a pasture sustainably. Broad carrying capacity ceilings are set in pasture

use contracts, but users may adjust stocking rates based on results (livestock weight gain over the season).

The Chamber of Agriculture is a public body– composed of an elected council of farmers who provide direction and political orientation for agricultural strategy. It employs staff who provide technical support to livestock producers within this strategy, and also implement the state system of livestock identification and traceability which is essential for disease control and export of livestock products.

The following points are of particular relevance to Turkmenistan:

- Decentralisation of management to users facilitates oversight of pasture management by the state. The existence of GPs avoids the need for the state bodies to communicate with hundreds of individual pastoralists. GPs are locally based and thus in a good position to understand and solve local issues, ensure that stocking pressure is evenly allocated, and plan appropriate infrastructural developments.
- A hierarchical system of pasture access provides priority access to residents, whilst avoiding under and over grazing by allowing outside users to graze, subject to pasture carrying capacity. The higher fees charged to outsiders helps with costs of pasture management and provide incentives to share pastures, avoiding under-use.
- The internal function and structure of pastoral groups is democratic, promoting cost-effective and locally appropriate decision making.
- The terms of pasture use contracts and participation in GP meetings by the state body in charge of pasture management (ONF), facilitates state oversight of grazing.
- The existence of support organisations between the state and pasture users is critical for the successful implementation of both pastoral legislation and sanitary regulations.

The following documents were translated into Russian for participants:

- Statutes of Pastoral Groups
- Internal Sanitary Regulation of Pastoral Groups
- Contract for pasture use between ONF and Pastoral Group
- Law on Pastures of 1972

All these materials, presentations and other documents are available on the regional pasture network <https://pasture.klink.asia/projects/pasture-network/en> under: Regional Pasture Network> Other>Europe.

Aims of the visit

A Law on Pastures for Turkmenistan was developed with the support of GIZ and passed in 2015. Detailed bylaws still need to be developed in order for the law to be implemented in the field. These bylaws, or regulations, include template statutes for the local pasture management institutions foreseen in the law, template planning documents and pasture use agreements. At the same time, the current law needs to be re-appraised and amended in the light of new developments in the agricultural sector and the ongoing development of a new Land Code. The legal arrangements, once drafted, will be piloted at two sites, in Ahal and Lebap velayats.

The French Pyrenees are host to a number of pastoral management systems, which differ in their arrangements between pastures users, local government and the state. Pastures belong to the state but are managed by users as a common resource, either directly through registered user associations, or through syndicates composed of elected municipal councillors. The way in which users are organised, modes of access to pasture and relationships between users and state bodies responsible for environmental and sanitary regulation are of interest for the Turkmen case.

The visit focused on the Pyrenean department of Ariège and main aims of the visit were as follows:

- To familiarise participants with pastoral tenure and management systems in the Pyrenees, including the structure and function of pasture users groups.
- To introduce participants to both governmental and non-governmental services supporting the livestock sector and to explain their role in pasture management and extensive livestock production.

This report is structured according to the meetings and visits conducted during the programme (given in Annex 1). These included meetings with representatives of the state in Ariège; with public bodies providing technical services to pasture users; and with two groups of livestock owners, together with staff from municipal councils in the pastoral areas which they use and manage.

Composition of the Turkmen delegation

The members of the delegation included representatives from state organisations concerned with pastoral reform, plus GIZ staff and consultants.

- Mergen Yusupov - State Committee for Environmental Protection and Land Resources, Department of International Relations.
- Azat Seydibayev – Member of Parliament
- Bashim Bayramov – Ministry of Agriculture – Livestock Department
- Guvanchmyrat Atakhanov– Institute of Deserts under the State Committee for Environmental Protection and Land Resources.
- Shamurat Nurlyyev – Head of Land Resources, Mary velayat
- Perman Emirsoyunov – Head of Land Resources, Ahal velayat
- Maya Ashirova – GIZ, Coordinator of Sustain-CA Programme in Turkmenistan
- Akmurad Gardashev – GIZ, Consultant
- Yolbars Kepbanov – GIZ, Legal expert

Activity 1. Introduction to the livestock sector in Ariège by state organisations

The following organisations were represented in the meeting:

- The Departmental Direction for Territories (DDT) represents the state at the local level and comes under the prefectural office.
- The Departmental Direction for Social Cohesion and Protection of Populations (DDSCPP) is a state service responsible for health, protection of animals and environment.
- The National Forest Office (ONF) is responsible for state owned land, including pasture. It has a local office responsible for three departments – Gers, Haute Garonne and Ariège.

Participants:

- Jaques Butel: DDT, Service for Environment and Risk
- Laurence Reveillé: DDT, Service for Agricultural Economy
- Pierre Bontour: DDSCPP, Veterinary Service
- Laetitia Nougier : ONF, Foix



Administrative organisation in France

In France there are four administrative levels: national, regional, department and communal. The commune, the lowest level, is the equivalent of the gengesh in Turkmenistan. There are 12 regions, 95 departments and 36,552 communes, united as inter-communal groupings where populations are very small. In each department there is both an elected assembly and a Prefect, nominated by the state – whose office is known as the Prefecture. Social and professional organisations are represented at all four administrative levels.

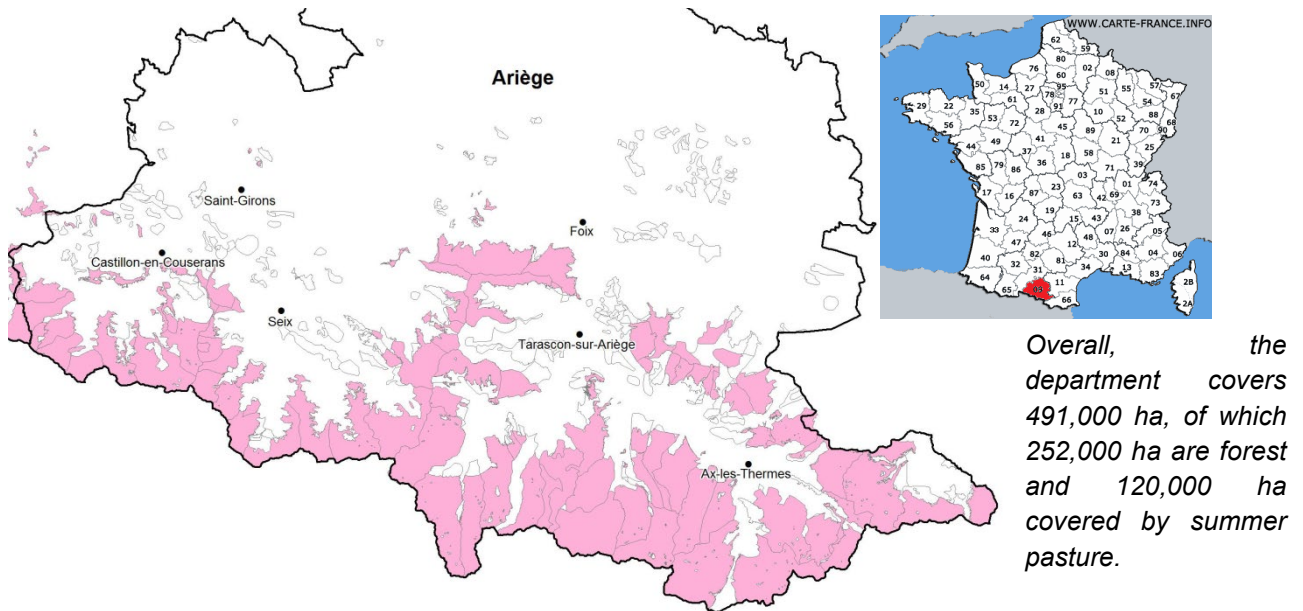
An overview of Ariège

Ariège is largely mountainous in the south, with piedmont and plain areas dominating in the north. The department has only 150,000 inhabitants, half of its population at the end of the 19th century, and Foix is smallest prefecture in France. However the population is growing in the plain, because of proximity to Toulouse. The area was once highly industrial, with metallurgy and textile development linked to the availability of forests and hydro-electricity. During this period, agricultural activity also led to deforestation and the development of protective legislation. Today, Ariège is well known for its high quality natural environment and extensive agriculture. Forests have largely regenerated and now cover 53% of the department, or 60% in the mountains.

Most agriculture in Ariège is privately managed. There are about 2000 registered farming enterprises, of which around 500 use collective pastures for grazing horses, sheep or cattle, raised mostly for meat although cheese is also produced. Together these owners hold 50,000 sheep, 11,000 cattle and 1,500 horses. Sheep are raised mostly for local consumption, but cattle are sold to other regions of the country, Italy or Spain.

Livestock producers generally hold private arable land and winter grazing areas (usually fenced) in the lowlands and valleys, sending their livestock to common pastures in the mountains for 4-5 months per year (Figure1). These common pastures may belong to the commune (gengesh equivalent), or to the state. State lands, whether forested or not, are the responsibility of the National Forest Office, but management of non-forested areas, which are used for pastures, is often delegated to pasture user groups.

Figure 1. Collectively used pasture in Ariège (pink). Lands shown in white are mostly at a lower altitude and privately owned. The insert shows the location of Ariège in France (in red).



collective use of pastures

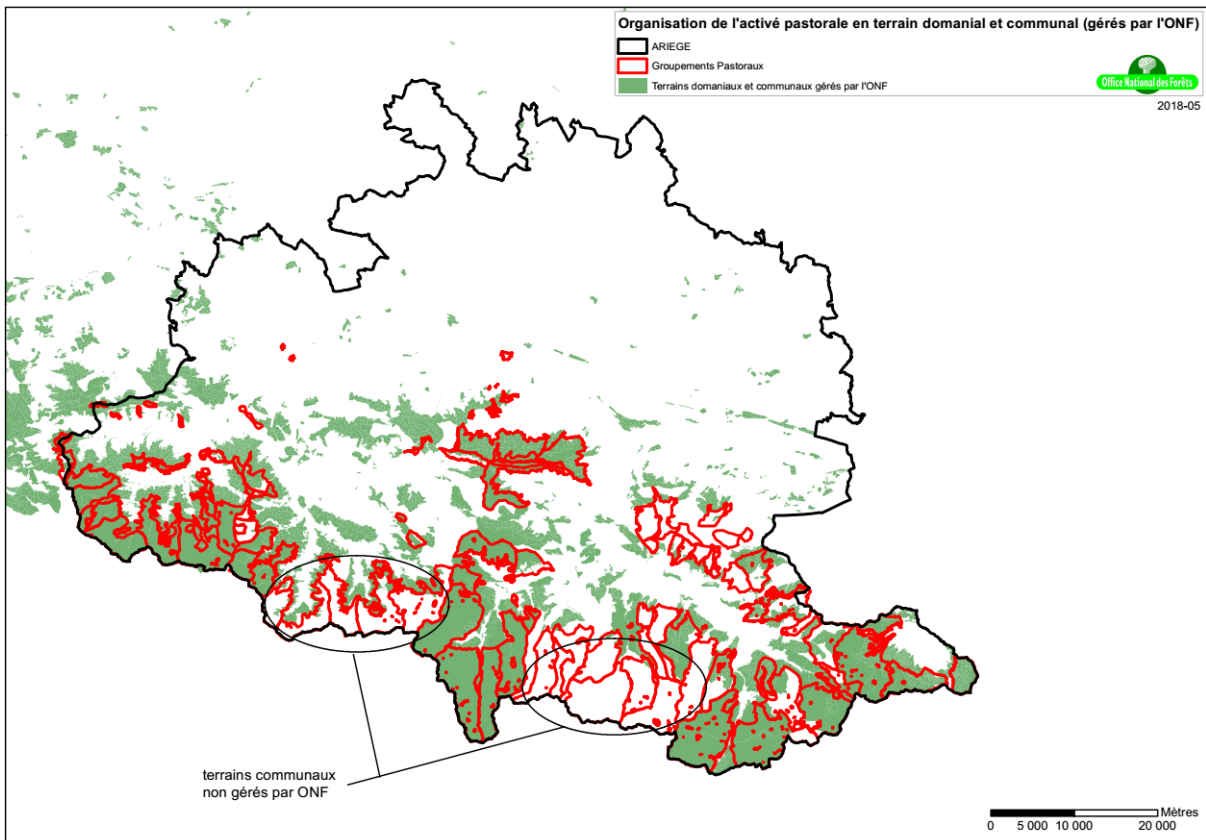
The collective use of pastures is an ancient tradition, but has only been codified in legal frameworks since the 1970s. The 1972 Law on Pastures established two forms of management arrangement:

Groupement Pastorale – Pastoral User Group (GP). GPs are registered as associations (under the 1901 Law on Establishment of Associations), but are unusual in this respect as they must be *accredited*, a function which is performed free of charge by the DDT. To be accredited they must have a ‘*convention*’ or pasture use contract. These agreements are made either with the ONF, with communes or an AFP.

Association Foncière Pastorale - Associations for Pastoral Land Use (AFP). These are syndicates of landowners who pool land for provision to livestock owners. The landowners may be private users or (as in the case visited by the delegation), groups of communes, who provide their pastures to livestock owners based on application and subject to certain rules and regulations. These livestock owners may comprise a simple list of individuals, in which case the AFP manages pastures directly, or they may be organised as GPs, which take on pasture management.

There are 88 GPs in Ariège, managing a total about 110,000 ha of land (average of 1,300 ha per GP). The size of the GPs is very variable – but they are usually associated with the commune in which members are resident.

Figure 2. A map showing the boundaries of GPs in Ariège (red), indicating pasture areas subject to contracts with the ONF (green) or with communes (white). AFPs are not shown.



Each GP has a statute and internal sanitary regulations based on standard templates. GPs are all members of the Pastoral Federation (*Federation Pastorale*, FP), which provides them with technical support. These support services include infrastructure development, help with funding applications, employment of shepherds, legal aid, and technical support for vegetation assessments and land use planning. For these services GPs pay annual membership fees to the FP. Fees used to be set by head of animals, but are now based on services requested.

The basis for GP membership in Ariège is the *droit d'usage* or *right to use* which gives inhabitants *automatic rights* to use pastures in their commune of residence. Today, non-residents may also become members and graze their stock. But these decisions are made by the GP as a whole, which decides who may join, and which may set different user fees for residents and for non-residents. Some grazing areas are better for goats and sheep, others for cattle. So the livestock species permitted to graze by the GP depends largely on environmental factors.

GPs hold a general assembly at least once per year, during which they assess the results of the previous year and plan for the coming one. They enumerate how many livestock are currently held in the group, and how many were sold, born or purchased over the year. They plan infrastructural maintenance and development. The DDT is formally invited to the general assembly of each GP, but in reality they delegate participation in the meetings to the Pastoral Federation.

The National Forest Office – authorised body for management of state pastures

This is a public organisation which manages land belonging to the state (forested and un-forested), and also that of communes (if forested). Thus, although the high pastures have no tree cover, where these lands belong to the state, they still come under the jurisdiction of the ONF, which is responsible for timber production, grazing, tourism and risk management. The ONF provides the pasture to GPs through a *convention* or *use contract* within the legal framework of the Forest Code.

In these *use contracts* is specified the period of use (nine years), fees, rules and regulations, rights and responsibilities. If the GP is composed of both of local residents with guaranteed 'rights to use' and users from elsewhere, then these latter must also be included in the contract, and have the same rights. If the obligations of the use contract are not respected, it may be retracted. For example, one GP set an uncontrolled fire on the pastureland and had their contract revoked. In addition to the use contract, every year the forest guard produces a list of areas to be grazed, with their estimated carrying capacity, and dates of arrival and departure from the summer pasture. This list of grazing areas may include places in which grazing is prohibited for promotion of other land uses, or for forest preservation. Such prohibitions are rare and justification must be provided. The carrying capacity is calculated based on existing pasture management plans, or on a general norm, which is one cattle or six sheep per ha. Many pasture management plans were produced by the Pastoral Federation 20 years ago and may now be out of date.

In Ariège there are 60 forest guards, with support services based in Foix. Staff from the ONF are invited every year to each GP general assembly to discuss the projects of the GP and to assess feasibility and impact of proposed infrastructural development. There is an application process for each project, through which the ONF is also consulted.

In other parts of France, such as the Alps, there is no automatic *right to use* pastures for residents and GPs must apply for use of pastures on ONF-managed land once every 6 years, they thus have no guarantee that they can use the same lands on a long term basis.

Many GPs graze animals on communal land (see Figure 2) in which case they have a contract with the commune, not with the ONF. Here, there is a standard template for the contract (based on a Prefectural Bylaw). This includes a number of standard points, but can be elaborated by the commune if desired. There is no single system for environmental oversight on these lands, but the ONF and FP can advise.

Disease control – the role of the state

At the state level, the Ministry of Agriculture deals with sanitary regulations. At the *departmental* level, veterinary oversight is conducted by the DDSCPP. The Sanitary Defence Association (GDS) - organised by elected livestock raisers themselves - also plays an important role. Recognized by the Ministry of Agriculture, the GDS is delegated to manage certain elements of disease control and to issue official sanitary documents. In France, veterinary services in the field are private, but must be accredited by the state. Disease control is therefore a public-private partnership.

There are three categories of disease: 1st, 2nd & 3rd.

1. Those posing a threat to humans and to the livestock sector in general. These are the responsibility of the state and include brucellosis, bovine tuberculosis, foot and mouth disease, bluetongue, avian flu and rabies. Foot and mouth and brucellosis have been eradicated, but these continue to be tested for, as they could reappear from other parts of the world.
2. No risk to human health, and reduced risk to the livestock economy. It is the Sanitary Defence Association which deals with these diseases, which include Infectious Bovine Rhinotracheitis (IBR).
3. Diseases having less significant impacts. Here, livestock owners take action individually, for example border disease of sheep.

Sanitary issues relating to transhumance are included in the Rural Code or governed by prefectural and municipal bylaws. There is a specific prefectural bylaw on disease control in collective pastures for Ariège. The diseases included are brucellosis, tuberculosis, leucosis and IBR for cattle and brucellosis and scrapie in the case of sheep.

The authorization for transhumance to summer pastures is delivered by the DDSCPP (in the case of bovines through the intermediary of the GDS). GPs must provide the list of all livestock raisers who wish to use the

pastures and check that all transhumant animals have the right authorisations once in the pasture. There is also transhumance both to and from the Spanish side, so they also provide certification for animals going to Spain or to Andorra.

All animals must be identified. Sheep and cattle carry ear tags whilst horses are tagged with electronic chips. All cattle must have a certificate or 'passport' including their sanitary status.

There are currently no obligatory vaccination programmes in place, except for cattle in areas affected by IBR. This is because diseases usually controlled by vaccination programmes have been officially eradicated. Foot and mouth disease does not currently exist in the EU, so protection depends on the control of borders rather than vaccination programmes. However, animals are regularly tested for disease by blood tests.

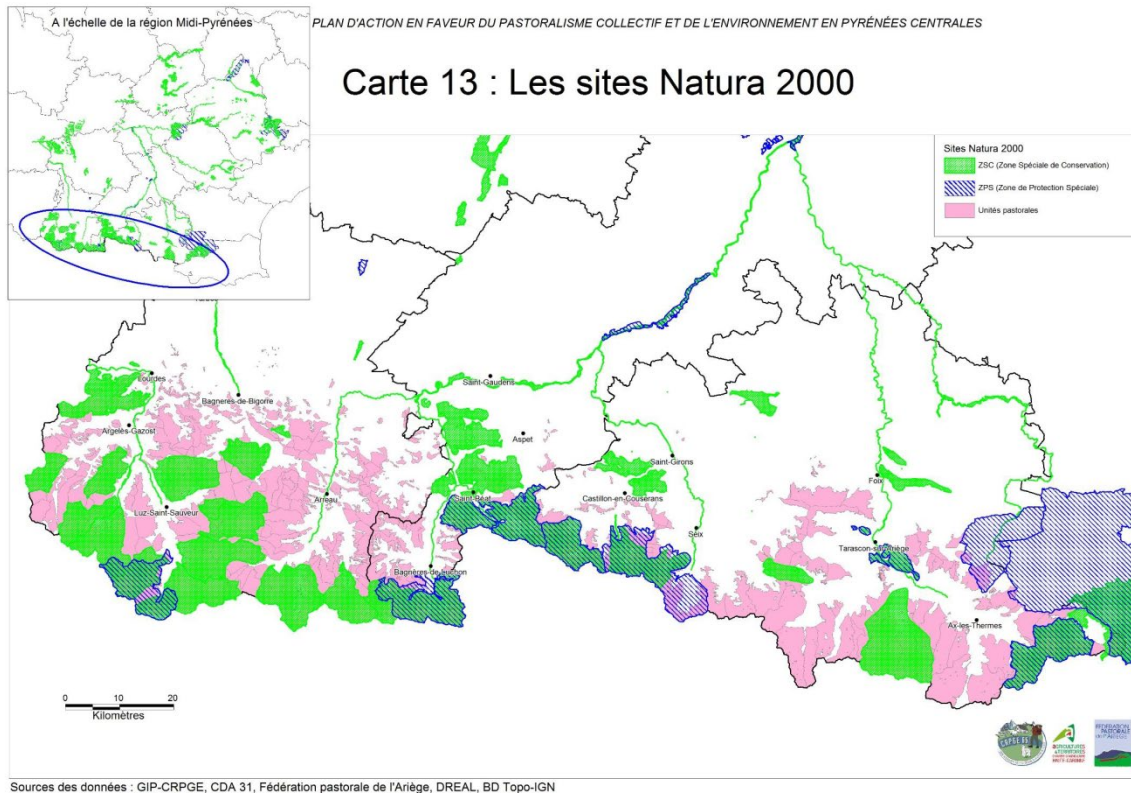
Insurance of animals against disease: The state compensates farmers if animals need to be slaughtered. The fund for this is maintained both by the state and by payments from livestock raisers. Compensation also includes indirect costs – for example if people cannot sell their products during a certain period. Testing for disease is usually paid for by livestock raisers themselves, but if disease is detected and rapid intervention required, then the state may cover these in order to prevent serious outbreaks.

Sick animals: Concerning sick livestock, the outcome depends on the type of disease. If it is a first or second category disease, then specific protocols are in place – which may be vaccination or slaughter. In foot and mouth cases, carcasses must be destroyed *in situ* - burned or buried. In cases of tuberculosis, animals may be taken to the abattoir.

Environmental regulations

Regulation for the protection of environment began in 1960s under the Ministry of Agriculture, as the Ministry for the Environment was founded only in the 1970s. Nature reserves were established by prefectural bylaws and were relatively small. With creation of the Ministry of the Environment, national parks were designated. More recently regional parks have also been established. Until the 1980s there were no European directives on nature protection, all initiatives were national.

Figure 3. Natura 2000 sites in Ariège (green and blue shaded). Pink areas are those grazed by livestock, which are allowed in the protected areas.



Since the 1990s, the European Union put in place a directive for nature protection – Natura 2000 (Figure 3), which began with an inventory in order to classify the different protected areas. In Ariège there is also a regional natural park (PNR) covering one third of the department. Recently, local governments have taken on increased responsibility for both Natura 2000 sites and regional parks, but decentralisation increases locally incurred costs. In Ariège communes are small and poor, so this cost sharing is an issue.

Many protected areas are located in the high pastures (see Figure 3) but grazing is not prohibited as it is seen to be compatible with conservation objectives. Indeed, in many areas extensive pastoralism is a key part of conservation and management plans, as it favours biodiversity. Concerning Natura 2000, there is no specific regulation for the GPs but there are incentives to conduct grazing activities in ways that promote biodiversity. Only when specific problems occur or complaints are made concerning the impact of grazing in a specific area do state bodies get involved. In some of these cases GPs may be required to modify their grazing activities.

Activity 2. Introduction to pastoral systems by the Pastoral Federation

Participants

- Thierry Marfaing – pastoral support worker – responsible for collective use of pastures
- Francois Regnault - pastoral support worker
- Juliette Messenger - specialist in pastoral inventories and assessments.



The role of the Pastoral Federation

In each department there is a structure which deals with management of common pastures, forming an interface between livestock raisers and the state organisations presented in the previous section. In Ariège this organisation is called the *Federation Pastorale* (Pastoral Federation) FP, but in other departments it may be part of the Chamber of Agriculture or located in some other organisational structure.

The FP was created in 1988. It brings together four key stakeholder groups.

1. GPs (livestock raisers using summer pastures).
2. Land owners (private, state, commune).
3. Shepherds (usually salaried workers).
4. Institutions (DDT, ONF, DDSCPP, elected members of the department)

The Federation is not made up of elected members - it has its own salaried workers who are specialists, for example in GIS, livestock production, land tenure, or vegetation assessments. Their strategy depends on the needs of the four sets of stakeholders listed above.

When pastoralism is regulated by the state and codified in laws, this produces bureaucratic processes which many pastoralists find difficult to deal with. This makes it important to have an organisation which can liaise between livestock owners and state institutions. The FP supports the establishment and registration of GPs. It provides support for day to day functioning and acts as an intermediary between GPs and landowners, or government organisations responsible for sanitary, environmental and financial aspects of pasture management.

Pastoral user groups: legal framework, structure and function

Pastoralists living in a given commune have the right to graze there, whether the grazing land within commune boundaries belongs to the commune itself, or to the state. Historically, communes managed their own pasture because most members of the municipal council were livestock raisers themselves. However, as numbers of livestock owners decreased, they were often no longer represented on municipal councils and thus lost control over their pastoral resources.

The response to this problem was to transfer management of pastures from municipal (commune) councils to pastoral groups – GPs. The establishment of these was codified in the Law on Pastures of 1972 (now absorbed into the Rural Code). Although residents of communes have pasture use rights, the GP is an instrument which allows these rights to be realised within a regulatory framework – through contracts with the ONF in the name of the state, or directly with communes. Although the law creating GPs was passed in 1972, it took 40 years

to establish and support GPs throughout Ariège, work principally undertaken by the FP. From the state's point of view, GPs are a very useful tool for pasture management as they are locally based and thus in a good position to understand and solve local issues. GPs avoid the need for the state, region and department to communicate with hundreds of individual pastoralists. The associations must be accredited by the DDT and are eligible for specific types of state assistance and support.

Each GP must have a convention (use contract) with the pasture owner. If they use state land, the Forest Code must be respected and this is reflected in the use contract. They must conform to sanitary rules and regulations overseen by the DDSCPP, but GPs can decide themselves to reinforce or add rules to further improve sanitary conditions.

In addition to GPs, there are other systems of pasture management in the Pyrenees. These include *syndicates* - which manage pastures, forest activities, tourism and hunting on communal lands and which represent the communes owning these pastures. They exist in areas of the Western Pyrenees where livestock raising is very developed, so there are still many livestock owners on the local council and thus less need for a GP.

Structure of GPs: The GPs come under the Law on Associations of 1901, which defines their structure and function. There is a president and board; some decisions are taken by all members, other decisions by elected representatives. At least once per year the livestock owners of each GP meet and prepare the next season. They decide how many animals may use the pastures and accept new members/users. They also split costs incurred during the previous season, which may include:

- Membership fees to the GP.
- Land use costs (to commune or ONF).
- Purchase of medicines and salt in the pastures.
- Investment in pastoral infrastructure (which may be spread over several years).
- Shepherding costs.

The total of these costs are divided by livestock unit¹ and members pay accordingly. The GP may also have an income, which includes various types of subsidy.

Shepherds are salaried workers, not livestock owners in their own right. As there is a lack of good shepherds, the FP helps GPs to find qualified people, many of whom have followed specialised training courses. Livestock are pooled into collective herds or flocks, and the shepherd remains with that herd or flock all summer. Some summer pastures are only accessible on foot, others may be reached by vehicle.

Shepherds used to be paid according to results - the numbers and weight of animals at the end of the season. Today, salaries depend on competence, age and experience. Usually the shepherd is paid twice the national minimum salary, which comes to between €1100 and €2000 per month. For a livestock owner, shepherding costs are typically around €6-€8 per head of sheep per summer (100 days). For cattle they are around €40-€50 per head (for 140 days over summer).

The weight gain of young cattle on summer pasture is around 1 kg/day, for a period of 100-150 days. A lamb gains up to 10kg over the summer. In winter, owners provide various types of fodder and in some areas animals may also graze outside for much of that season.

Pasture inventory and management planning

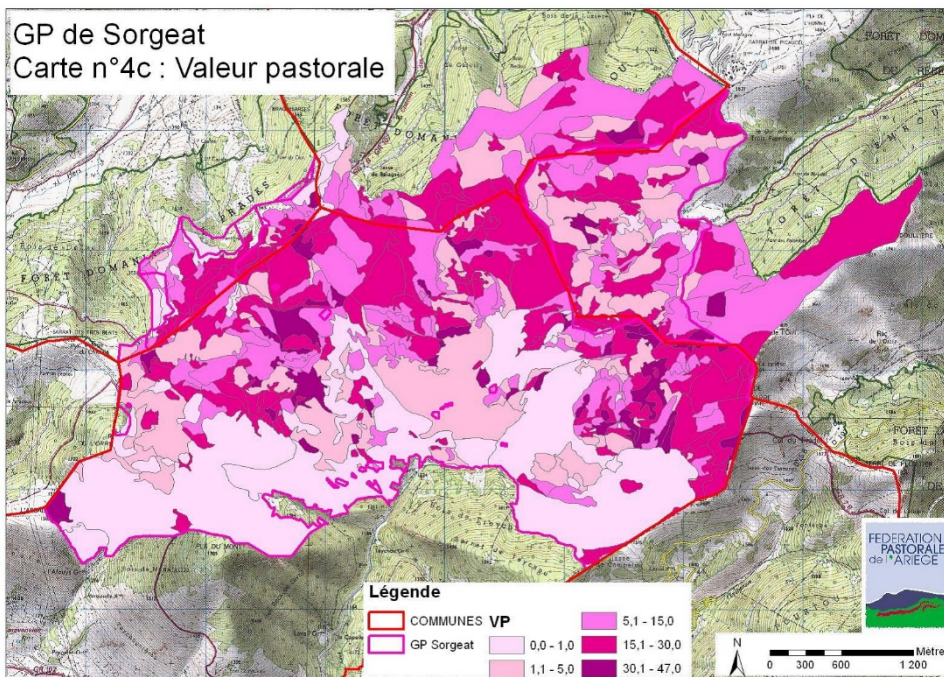
¹ One Livestock Unit (LU) is: 1 cattle = 1 horse = 7 sheep = 7 goat

The FP conducts pastoral assessments – or *diagnostics*. These include an inventory of vegetation resources (Figure 4), key infrastructure and stocking rates. From this they work with the GP to produce grazing schemes and timetables with supporting



infrastructure development activities. On the basis of this information a pasture management plan is produced, including environmental and social aspects of use and management. The GP has full control over the implementation of the plan - so it is their choice to request that the plan be made and to decide to use it, or not. However sanitary and environmental rules do need to be respected and are also included in the plan. Not every GP has a pasture management plan, the FP makes these upon request. They are expensive to produce and so are usually associated with a particular purpose or availability of special funding, for example at Natura 2000 sites. If there is no plan, then the experience of the pastoralists plus the standard state regulations and terms of the pasture use contracts are usually enough to properly govern a pasture sustainably.

Figure 4. An element of a pasture management plan, showing pastoral forage values (units corresponding to the edible biomass and forage quality) for each pasture area.



Activity 3: Meeting with the Association for Pastoral Land Management for Haut-Tarasconnais

Participants

- Nathalie Umhauer – President of the AFP
- Arnaud Umhauer - Livestock raiser in the AFP
- Christian Barbandier – member of the municipal council and AFP syndicate
- Marie-Anne Masdieu – Mayor of Miglos and syndicate member

Structure of the Haut Tarasconnais AFP

At this site, there are no state owned pastures, all pasture land belongs to communes. Instead of a GP there is an *Association for Pastoral Land Use* or AFP. The AFP manages the pastures belonging to three communes – Miglos, Larcac and Larnat - and is represented by a syndicate of mayors and elected council members from these communes. However, in this case the president and some of the members are themselves livestock producers.

The elected members of the three communes select those from amongst their number who will sit on the syndicate which runs the AFP. The number of people on the syndicate is based pro-rata on the number of hectares of pasture in each commune. There are 12 representatives in total:

- 7 elected members from Miglos
- 2 from Larcac
- 4 from Larnat

From these members are elected a president and a board. In this case the president is a livestock raiser, but this does not have to be the case. The mandate of the syndicate is three years, so three out of the 12 members are replaced every three years. The AFP itself must be renewed every 20 years, if the three communes concerned are happy to continue with this arrangement. There is a general assembly once per year to vote a budget and the board meets from time to time to make specific decisions. The president and board do most of the paperwork.



Procedures for access to pastures

Livestock raisers make written requests to the syndicate to use the pastures. Residents of the pasture-owning communes have first priority, but others are also permitted, some of whom are based far away. The pasture use fee for local users is set at half that for those coming from outside. The total number of animals allowed to graze is set by the syndicate. The maximum number of cows is 700 head, plus bulls and calves so 1500 animals on 2000 ha. The list of pastures users for 2018 was provided (Figure 5). Some come from Northern Ariège, around 50km away. Prospective users must apply to the AFP at least six months before the season starts. The people who come from outside the three communes do not usually sit on the syndicate, but four years ago the AFP opened a commission to allow non-local pasture users a representative platform.

Figure 5. The list of users applying to graze on the communal land in 2018

Sanctions: One role of the AFP is to sanction rule-breaking pasture users. Some people use the high pastures out of season, which is an issue as this affects forage availability. Other motives for sanction include non-compliance with veterinary procedures before putting animals on the pastures. Recently someone was barred from using the pasture as their animals had not been treated against certain diseases. This decision was made by the pasture users themselves, but applied through the syndicate. The AFP has its own internal sanitary regulations and keeps a register of all animals, including their tag numbers and sanitary status. Births and deaths up on the pasture must also be registered.

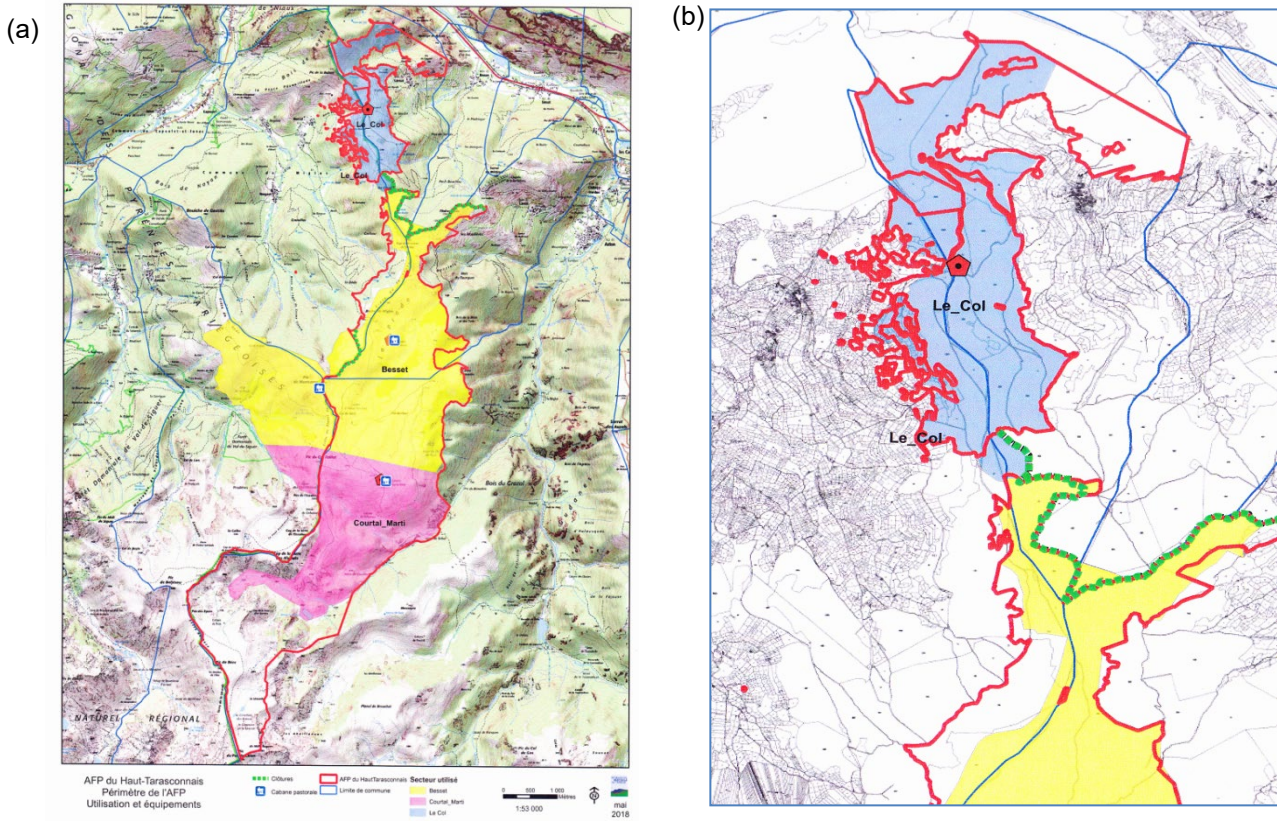
AFP du Haut-Tarasconnais
Gestion concertée des DPB estive
Prévisionnel 2018 de montée et descente d'estive

La Charte départementale pour une gestion concertée des droits à paiement de base (DPB) en estive doit permettre d'optimiser la valorisation des DPB estive, en favorisant notamment des transferts de DPB. Dans ce cadre, la Fédération Pastorale est chargée de recueillir les prévisions de montée et descente d'estive. Ce prévisionnel est à compléter et à renvoyer avant le 31 février 2018.

Fédération Pastorale de l'Ariège – Hôtel du Département – 09000 FOIX / federation@pastoralisme09.fr renseignements : 05.61.02.09.66

IDENTIFICATION DES UTILISATEURS		Statut de l'exploitant		Statut des animaux		Statut des parcelles		Statut des parcelles	
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Figure 6. The boundaries of the Haut Tarasconnais AFP (in red). Coloured areas represent different grazing units managed by the AFP, uncoloured area within the red boundaries represent pastures provided for use to neighbouring GPs. (a) Indicates topography and forest cover (b) Indicates cadastral boundaries – showing a large number of very small privately owned parcels, and the larger areas of collective pasture at high altitude.



Maps form the basis for the planning and management of the AFP. A map of the territory indicates the area covered by the AFP (Figure 6). The national cadastre provides the basis for the map, and the Pastoral Federation, which has a GIS section, supports GPs and AFPs through provision of additional information. The national cadastre, including the location and number of all land parcels, is available publicly on <https://www.geoportail.gouv.fr/>.

Finance and expenditure

The livestock raisers pay fees to the AFP, as this represents the land holding communes. Subsidies are available to users through the AFP. For example, there are two shepherds which are subsidised at 70% of their salary and some infrastructural costs have also been covered in this way. The AFP itself does not pay tax even if its budget has a positive balance at the end of the year, but livestock raisers all pay tax on their income as individuals. Because the AFP is a structure run by local elected councils, the state oversees expenditure and accounts must be provided to the prefecture. So the AFP does not have a cheque book or bank account - all expenses are made by bank mandate on behalf of the state. The elected members of the AFP are not paid – they are voluntary (as are members of village municipal councils). AFP presidents also work for free.

Infrastructural work includes construction and maintenance of roads, building of coraals and fencing, water supply, and shepherds' cabins. In France there are now standards for pastoral cabins which include the presence of a drinking water, shower, toilet and solar energy. Fencing is required to keep animals out of the forest and to prevent animals from moving back down to the village in the summer. The AFP also sets managed fires to remove senescent vegetation and shrubs.

Genetic improvement

In high Ariège, the predominant cattle breed is the Gascon and the sheep breed is the Tarasconnaise. These breeds are both highly productive, and adapted to grazing on extensive mountain pastures. In France there are a number of well known meat producing breeds such as the Aquitaine, but these are not adapted to mountain areas.

There is an association of Gascon breeders: gascon@wanadoo.fr

<http://www.gasconne.com/g/index.php>

There is an artificial insemination service available, but in general people in this AFP prefer natural insemination, using their own bulls. This usually occurs in spring or autumn close to the villages; so bulls may not be required in the high pastures (they are very valuable so some farmers prefer to keep them close to home). In other cases, bulls may be sent to summer pastures for those cows which were not already inseminated successfully, but this needs permission from the syndicate.

The farmers interviewed change bulls every three years. They also keep some castrated males for 3-4 years before selling. Otherwise, most calves are sold at six months, as it is too expensive to feed them over the winter. Calves are often sold to specialised fattening lots, where they are fed on grain for 3-4 months before slaughter. Farmers conduct marketing themselves, the AFP is not involved. But when the AFP was first established after the war, it was the commune who purchased the bulls and rams, as people were too poor to afford their own.



Other topics

Wood production: The lower parts of the mountain are thickly wooded. Much of this land belongs to Miglos commune but is given over to the ONF for management, generating €15,000 - €17,000 for the commune budget every two years. There is also a lot of forest on private land, some of which is cut by owners for firewood. There are also private enterprises which obtain permission from private owners to cut large stands for sale.

Manure use and disposal: Much of the manure which accumulates in stables is used to improve meadows. The rest is picked up by an enterprise which recycles it for sale as fertilizer.

Slaughter: In Turkmenistan there are specific seasons or periods when animals are slaughtered either linked to religious festivals or for long term conservation. In France there is a tradition to kill a lamb at Easter and pigs are traditionally slaughtered in the winter so that products such as pate and sausage can be made under cold conditions. Today, animals must be slaughtered in abattoirs. Some farms continue to slaughter at home, but only for their own consumption.



Activity 4. Meeting with mayors the Montcalm Pastoral Group and staff of Auzat commune

Participants

- Joseph Bernadac – President of the Montcalm GP
- Jean Pierre Ruffet – Mayor of the Commune of Auzat
- Nadine Garica – Deputy mayor of Auzat.
- David Clement – Economic Development for the Auzat valley.
- Thierry Marfaing – Pastoral Federation

Grazing arrangements

There are seven communes in the Vicdessos valley, including the Commune of Auzat. Land on the bottom of the valley is privately owned, whilst land above 1200m in altitude (85% of the total) belongs to the state and includes both forest and open pasture. The forest areas are managed directly by the ONF, and the pasture areas by the GPs via a use contract with the ONF (which retains overall management responsibility). So technically the GPs are 'tenants of the state'. Unlike AFPs, GPs are constituted of livestock raisers, not by elected members of the commune. There are many GPs in the Vicdessos valley, of which five use land in Auzat commune.

Residents of the commune have guaranteed user rights to pastures within its boundaries, including the state pastures. The establishment of GPs allows residents to realise these user rights, but a GP may allow non-residents to join if there is space. Some GPs are even made up *entirely* of non-residents. Such groups hold user rights to the Auzat pastures based on very old migratory patterns as they have few available summer grazing areas in their commune of residence. The livestock owners in GP Montcalm itself are mostly locally based – the furthest lives 30km away.

Once the GP is established, members plan the construction of huts, fences, water points and coraals. The FP then help the group to set up a provisional budget, which is often multi-annual as costs cannot be covered in a single year. Fences, cabins, and cattle grids are subsidised at between 60% & 80% by the state. These operations are all planned in the general assembly of the GP. The commune and FP are involved in final decisions and in applications for subsidies. The ONF must approve the plan or make recommendations for amendments.

Livestock owners may graze cattle and sheep, but not goats, which are not allowed on the land of the state – managed by the ONF. Goats are considered negative for the forest and have been prohibited since the time

of the Napoleonic code. At that time there was a lot of deforestation, and the ONF planted forests to stabilise soils on steep slopes. Today the forests have regenerated, so the prohibition of goats is no longer so relevant.

Once per year between June and July the region (Occitanie) and department (Ariège) send supplies to the summer pastures for the shepherds including wood, food and salt. These provisions are paid for by GP members, but the region covers transport costs, which may be by helicopter or mule.

Of the GPs which are active in the valley – some hire a shepherd, whilst others leave their animals unguarded, visiting from time to time. This latter arrangement is possible as the animals have been kept in the same place for generations and tend not to stray, however with the reintroduction of the bear it has become less feasible to manage in this way. There is compensation for animals killed by the bear, but not for injury or abortions caused by stress. In connection with the bear, the state helps with the provision of dogs and shepherding costs.

The Montcalm Pastoral Group

The GP is made up of seven livestock raisers using an area covering 3400 ha, of which 1400 ha are considered grazable. GP Montcalm alone has 1500 sheep, horses and 100 cattle, of which cattle and horses graze lower down, and sheep higher up. The five GPs using Auzat commune land have over 9000 sheep between them.



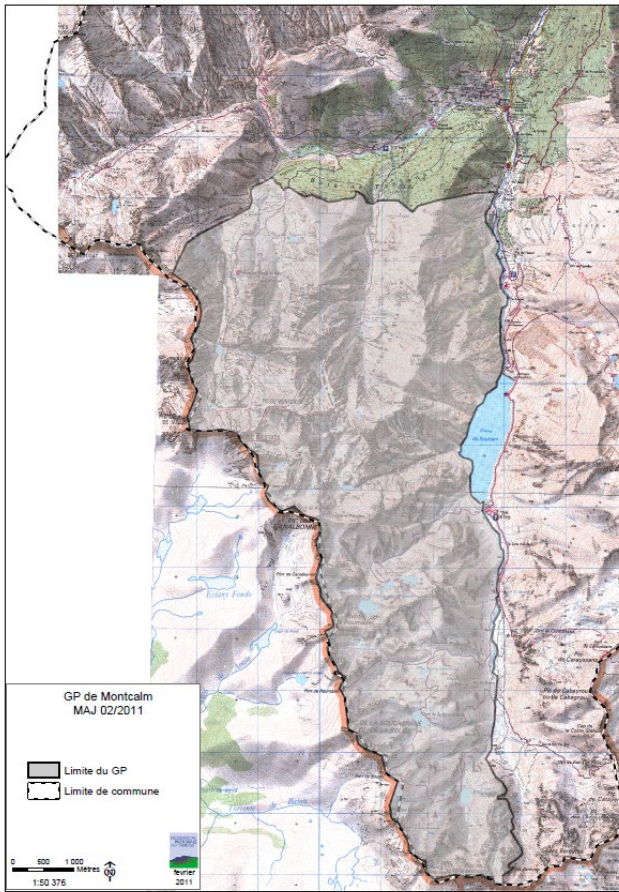
Membership fees are €10 per year. Members elect a president, secretary and treasurer. They have a formal statute and internal sanitary regulations, both based on standard templates. But GPs may add additional rules and regulations. For example in Auzat, GPs have set rules that only Merens horses, Gascon cattle and Tarasconnais sheep may graze, to ensure the purity of these breeds.

The general assembly meets in spring, when members evaluate the last season and prepare the next. One member has one vote, regardless of the number of animals owned (according to the Association Loi 1901 under which this GP is registered). But other legal arrangements are also possible, in which the weight of each vote depends on the share of each member in the group, i.e. the number of animals they own. During the spring general assembly the following topics are covered:

- Numbers of animals to be sent to pastures;
- Dates of movement to pastures;
- Priorities for infrastructure maintenance;
- Assessment of applications from new members;
- Hiring of shepherd.

The date of transhumance depends on the weather and amount of available forage. Those who do not respect the rules can be excluded. Decisions are taken based on a majority vote.

Figure 7. The boundaries of pastures used by Montcalm GP



In October / November, the general assembly is reconvened to calculate the costs incurred over the season. These are divided amongst members by livestock unit. Each owner has their own insurance, but the GP also has an insurance as a legal entity, and is collectively responsible for all damages incurred in the pastures, like dogs bites and damage to property by livestock. Veterinary costs in the pasture are also counted as a lump sum, and divided by GP members.

The cost of sending each LU to the pastures is around €70 per LU if a shepherd is hired. Without a shepherd the cost is €10 per LU per season, which is 90 days long for sheep and 120 days for cattle and horses. Montcalm GP does not use a permanent shepherd so it is cheaper for them.

The GP is a legal entity. It should report to the commune, the ONF and to the services managing disease control and subsidies (e.g. DDCSPP, DSG and DDT). So every year Montcalm GP produces an **annual report**, including financial information, which can be provided to all these organisations.

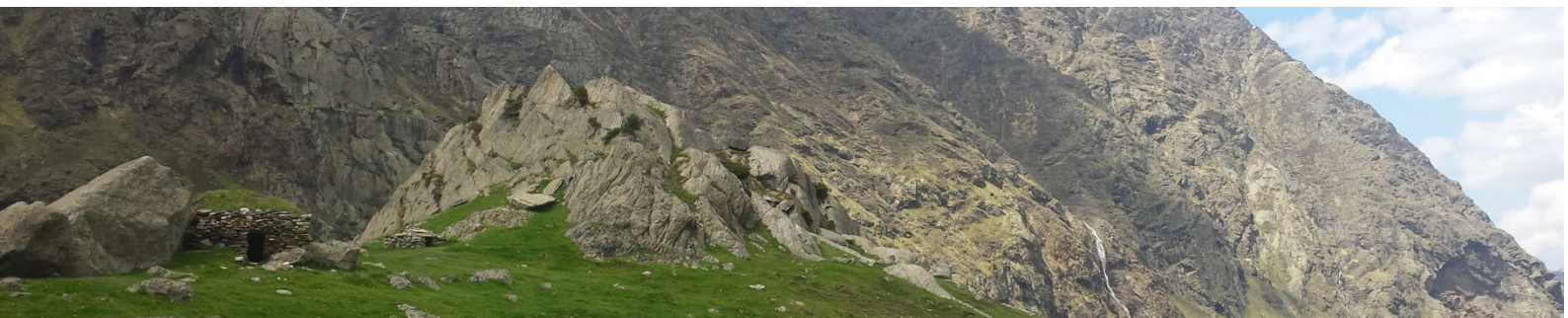
Each GP sets a limit to the number of animals which can be sustained in the pastures. Montcalm GP has a ceiling of 1100- 1300 LU. This is always a range, as some years are better than others, but the stock raisers practise

conservative stocking in order not to take risks. The ONF sometimes specify that due to presence of protected wildlife or plants, fewer animals should be grazed in certain areas, or even avoid them altogether. The FP has conducted a pastoral inventory and management plan in this valley. This included assessment of vegetation, infrastructure, trails and access. The ONF has its own management plan for the forested part.

Advantages of GPs:

- The GP is a single interlocutor between livestock owners and land owners or state regulatory bodies. If there is a problem, these can contact the president of the association.
- Before the GP was established, some people had access to lots of land but few animals. Others little land and many animals, so the land was not grazed evenly.
- Common infrastructure projects such as cabins can be planned and funded.
- Coordination of disease control is improved.

According to the GP president, communication between the GP and the commune, and with hunting groups, could be better. The GP also sees little benefit from tourism. There are many problems with dogs brought by walkers, the only positive point being that hikers keep the bear away. There have been some initiatives to try to make direct sale of livestock products to tourists. However, most cattle are raised to a certain age for



fattening, not directly for meat. There is no production of cheese in pastures, so few local products are finished in the valley.

Activity 5. Visit to the Chamber of Agriculture

Presentation by Caroline Nollet – head of the Livestock Service for Ariège

The Chamber of Agriculture

Like the FP, the Chamber of Agriculture works at the interface between the state and livestock farmers, with one Chamber per department. It is a public body– composed of a council of farmers (elected for five years) who provide direction and political orientation for agricultural strategy. The Chamber has salaried workers who apply the decisions of the council. These include one director, five heads of department and 50 additional employees.

The mandate of the Chamber is limited and defined by the state. This mandate covers areas such as arable agriculture (cereals and vegetables), livestock production, farm management, strategic development, agro-tourism, solar energy and agricultural construction & infrastructure.

The revenue of the Chamber is made up as follows: 30% from land tax, 30% from European or regional projects (subject to tenders), and 30% from services sold to farmers. The total budget is €5 million.

The staff of the Livestock Service include specialists in livestock identification, beef production, dairy production, and sheep & goat raising. The Enterprise Service supports farmers with financial management, overall production strategy and access to European aid and other forms of support.

The elected council of farmers elaborates a long term strategy for the Chamber. At the moment this includes innovation (e.g. organic agriculture), support to collective projects (e.g. platforms for collective marketing of local produce to schools) surveillance of livestock by drone and support to newly established farmers.

The Chamber also has a role as lobbyist for the agricultural sector. Last week the president of the Chamber met with the Minister of Environment to convey the point of view of livestock farmers concerning the reintroduction of the bear.

Although the Chamber of Agriculture is independent, it may also be delegated to conduct specific functions for the state. For example the Ministry of Agriculture has delegated the identification of animals to the Chamber. Concerning other tasks, the chamber is independent and represents the farmers. So it is not a state organisation. However their accounts are audited by the state to ensure financial regularity.

Identification and traceability of livestock

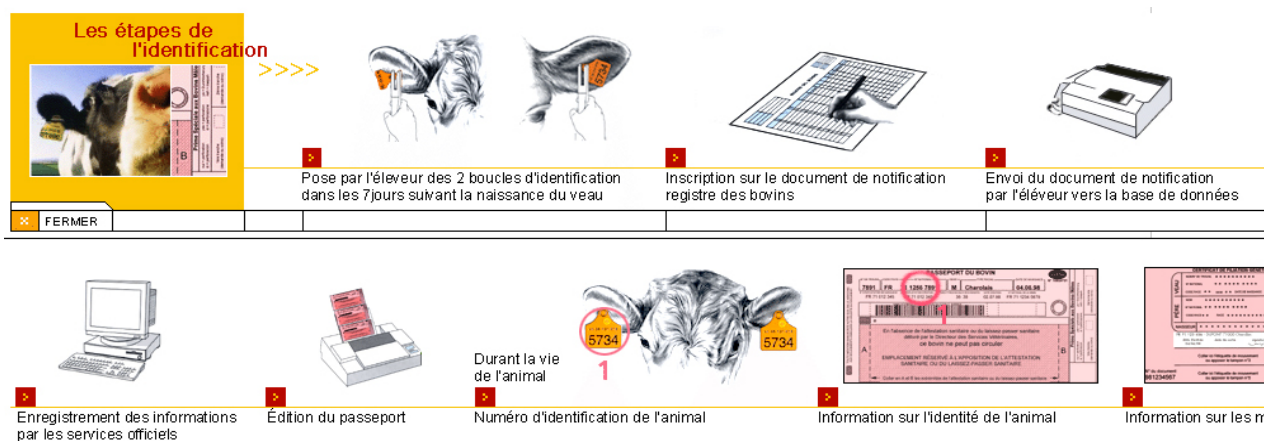
Traceability of animals from birth to death is a national imperative (Figure 7). All documents associated with identification are official state documents. Each head of cattle has a passport including ID and sanitary components. The number corresponds to the (two) ear tags of the animal – which it carries all its life. Each ear tag costs €1.5.

The cost of the passport is included in the fees paid to the Chamber of Agriculture by farmers. Each farmer keeps a list with the number of each animal, name, breed, number of tag and ID numbers of parents, all inputted into a database managed by the Chamber. When a calf is born, the owner has 7 days to declare the birth by internet or on paper. The passport follows the animal its whole life, so when it is sold, the passport goes with the animal and the database is updated. At the time of sale each animal must have two eartags. Only the Chamber can replace a lost tag. If an animal loses *both* tags then it must be slaughtered as traceability has been lost.

The green part of the card is proof that the animal has been declared 'clean'; of certain diseases – notably brucellosis, tuberculosis and leucosis, for which animals are tested regularly. Bovine Viral Diarrhoea and Infectious Bovine Rhinotracheitis are soon going to be included in this testing regime.

For sheep, traceability is not so detailed and is conducted more at the herd level, not every animal must have a passport, but they do all have eartags and ID numbers. If animals are sold, the sale/purchase is recorded as a list of eartag numbers, but less additional information is required. Large flocks of sheep now have electronic chips inside the ear tag, which can be read rapidly with an automatic reader. In a few years these electronic tags will also be required for cattle. Horses have a chip under the skin. Chips do not include a GPS system, as this would require a battery and emitter. Signals can only be picked up over a small area and a drone would be needed to fly very low to pick this up. The main issues encountered by the Chamber staff are with people who do not declare births/deaths/sales in time. Another problem is errors in declarations, for example declaring a male as a female.

Figure 7. The process of animal identification which include ear-tagging after birth; registration by the farmer; listing of information in a database; production of the animal passport.



The identification system is very important for genetic selection and for guaranteeing public health and safety. For export it is also very important as other countries may require these norms for accepting entry of French products into their markets. The sanitary requirements are very strict, all medical treatments are recorded and meat can only be sold after a certain period following treatment. Meat containing hormones cannot be sold, although it is allowed in other countries. The Chamber helps farmers to meet all these requirements.

If an animal dies, there is a carcass disposal service, which must be paid for by livestock owners. The only exception is animals which die on the summer pasture, where vultures and other animals eat the carcasses.

If someone purchases meat and becomes sick, it is usually possible to identify the source of the disease in terms of the animal, herd or flock. The abattoir keeps one ear with the tag for traceability. In supermarkets meat has identification numbers on it so should be traceable back to the abattoir and then to the owner.

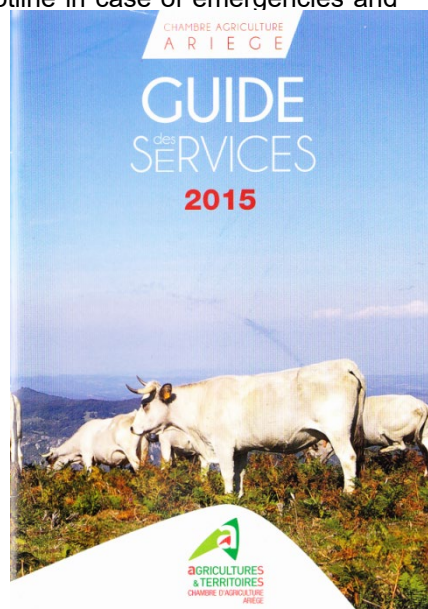
Slaughter: There are two abattoirs in Ariège, one near Foix/Pamiers, and one near Saint Giron. These abattoirs are public. There are also private abattoirs, which belong to very large enterprises, for example very large meat processors which slaughter animals for their own products. In the municipal abattoirs individual livestock raisers have their animals slaughtered and then sell them directly to clients, butchers, supermarkets etc. It is forbidden for livestock owners to slaughter livestock themselves. However, for Muslim feasts people often purchase animals and slaughter themselves at home. The sanitary services close their eyes to this, unless the meat is sold to restaurants, in which case legal proceedings may follow. In the Pamiers abattoir, there is a halal service, so it is possible to produce and purchase halal meat without slaughtering at home.

Extension services for farmers

The Chamber supports farmers in breeding and genetics, feeding, nutrition, and financial management. These services are paid for by farmers. The Chamber has a brochure indicating services and prices, some of which are provided on a long term subscription basis. For example, for €49 per month, farmers may obtain a full assessment of their livestock system and receive regular advice over the year to improve income. This package includes nutrition, reproduction, improvement of stalling and buildings, a hotline in case of emergencies and help with subsidy applications.

There are also some private extension providers. For example, very large marketing cooperatives might have their own services.

Genetic improvement services: The cattle passport may contain the identification of the parents of the animals. Some people are not interested in this information, in which case, these identities are not verified by the Chamber. Others subscribe to the *genetic service*, and in such cases the Chamber records the date of insemination and conducts DNA analysis to check the identity of parents. The advantage here is that the animal has a verifiable pedigree and can be sold at a higher price. Today around 200 livestock producers in Ariège practise genetic improvement and produce pedigree breeding animals of high quality. For these farmers the Chamber provides a daily weighing service to verify weight gain.



Conclusions: points of relevance to pasture reform in Turkmenistan



Pasture management is conducted by users themselves, and organised at the local level:

The decentralisation of pasture management to the local level and establishment of user organisations allows efficient and locally-informed management of pastoral resources, whilst facilitating interactions between pastoralists and the state. Most pastures are managed by GPs - in which case livestock owners manage their own pastures, with local government playing little role. There are also other arrangements (such as the AFP visited) in which elected commune governments form a managing body or syndicate. This works best when livestock owners sit on the municipal council and can thus participate in decision making. Either way, the state retains a strong level of oversight through pasture use contracts with the ONF, and through the disease control system in which GPs and AFPs are fully integrated.

The Turkmen law on pastures also foresees the creation of local pasture management bodies - Commissions for Pasture Use Regulation, responsible for pasture areas corresponding to a gengesh or former farmers' association. These Commissions will include both representatives of pasture users and of local self-government authorities. The internal statutes and regulations of the French structures could serve as useful examples.

User rights for residents are guaranteed

In Ariège, there is hierarchy of user rights for pastures, with local residents holding priority grazing rights, and secondary rights provided to incoming users depending on carrying capacity. These users must often also pay a higher rate of user fees, providing an incentive to share pastures where carrying capacity has not been reached. However, there is a lot of flexibility: GPs may also use pastures belonging to several communes or hold use contracts for pastures far away from their home commune. 'Outsiders' may come from neighbouring communes or other regions of France many hundreds of kilometres away. These arrangements avoid loss of pasture access by local users, whilst promoting an even grazing pressure on pastures. In Turkmenistan, pastures are also used by both livestock owners residing locally and users coming in from other villages, etrap or velayat for part of the year, so such a system could also be appropriate.

Table 1. A summary of organisations involved in pasture management in Ariège

Level	Organisation	Acronym	Function
State organisations	Departmental Direction of Social Cohesion and Protection of Populations	DDSCPP	State guarantor of animal health and public safety
	Departmental Direction for Territories	DDT	Representative of Ministry of Agriculture
	National Office of Forests	ONF	State body for management of state pasture and forests
Technical Support (by public organizations with farmer representation)	Pastoral Federation	FP	A federal body for GPs; provides technical support for livestock owners using collective pastures.
	Sanitary Defence Association	GDS	Representative body of livestock producers delegated to conduct disease control functions
	Chamber of Agriculture	CA	Public body representing farmers, delegated by the state to manage process of animal identification and providing technical services for farmers.
User groups or commune-level syndicates managing pastures at local level	Pastoral Group	GP	Group of livestock owners using and managing a specific pastoral area
	Association for Pastoral Land Use	AFP	Syndicate of pastoral land owners (communes or groups of private landowners)

Technical support to local pasture use and management organisations is an essential part of the system:

Table 1 summarises the three levels of the system of pasture management in Ariège, including state organisations, local structures for pasture management at the communal level and intermediary organisations,

which represent farmers, provide technical support and implement state policies at the field level.

Those organisations, including the Chamber of Agriculture and the Pastoral Federation, which work at the interface between livestock owners and the state, are critical for the successful implementation of both pastoral legislation and sanitary regulations. Pasture user groups require substantial support to deal with the bureaucratic requirements associated with legislation and regulation. They also require technical support with pasture management planning and infrastructure development. It should be noted that in Ariège, even with the help of the FP, the establishment and strengthening of the Pasture Groups foreseen in the 1972 law took 40 years to complete. One important function of the FP is the production of maps and other planning documents. In Turkmenistan, Commissions for Pasture Use Regulation cannot function unless the areas under their jurisdiction are spatially defined, with accompanying maps showing boundaries and water points.

In Kyrgyzstan, the government Pasture Department sub-contracted the social facilitation organisation ARIS to establish Pasture Users Associations. Both the Pasture Department and NGOs such as CAMP Alatau support pastoral organizations to meet their legal obligations. In Turkmenistan, the setting up of a Pasture Department under the Ministry of Agriculture with the responsibility to support the development of local pasture management capacity would be a good first step. The establishment of public bodies with farmer representation should also be considered.

Extension services for livestock production such as those described by the Chamber of Agriculture are very important for small farmers. In Turkmenistan, technical services are available for state farms and large agro-industrial complexes, but not for family farming enterprises - which own the bulk of the livestock population. The delegation also observed a system for animal identification, which is essential for export of livestock products. Such a system is now being put in place in Kazakhstan, where all livestock are also tagged.

Annex 1. The Programme for the visit

Programme		
Monday 21 May		Arrival in Foix
Tuesday 22	Morning	Introduction to pastoral management systems in the Pyrenees by the Departmental Direction for Territories (DDT), Departmental Direction of Social Cohesion and Protection of Populations (DDCSPC) and National Office of Forests (ONF)
	Afternoon	Visit to the Pastoral Federation in Foix
Wednesday 23	Whole day	Visit to the Haut Tarasconnais AFP in Miglos
Thursday 24	Whole day	Visit to the Montcalm Pastoral Group in Auzat commune
Friday 25	Morning	Visit to the Chamber of Agriculture
	Afternoon	Visit to Foix Castle
Saturday 26	Whole day	Visit to Toulouse
Sunday 27		Fly back to Ashgabat

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