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# Management of common pool resources: Cases of collective grasslands, inventory and characterization of their management in the region of Hadj Mechri, Laghouat (Algeria)

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**Abstract.** The aim of this study is to identify collective grasslands in the region of Hadj Mechri (in Laghouat region, Algeria) and to characterize their operating modes. The results showed different legal status (Arch, domanial and municipal) and different degradation levels of collective grassland managed by two operating modes, namely the collective mode and individual mode. The use of these collective grasslands was limited only to sedentary agro-pastoralists which are installed in the periphery. When operating mode is individual, it means that there was a tacit division of the collective grassland between the agro-pastoralists concerned.

**Key words.** Collective grasslands – Operating modes – Levels of plant degradation – Legal status – Hadj Mechri.

***La gestion des parcours steppiques collectifs : État des lieux et caractérisation de leur gestion, cas de la région de Hadj Mechri, Wilaya de Laghouat (Algérie)***

**Résumé.** L'objectif de cette étude est l'identification des parcours collectifs de la région de Hadj Mechri (Laghouat, Algérie) et la caractérisation de leurs modes d'exploitation. Les résultats montrent que des parcours collectifs existent sous différents statuts juridiques (Arch, domanial et communal), différents niveaux de dégradation et sont gérés par deux modes d'exploitation, à savoir l'exploitation collective et l'exploitation individuelle. L'exploitation de ces parcours collectifs est limitée seulement aux agropasteurs sédentarisés en périphérie. Quand l'exploitation est individuelle, cela signifie qu'il y a eu un partage tacite du parcours entre les agropasteurs concernés.

**Mots-clés.** Parcours collectifs – Modes d'exploitation – Niveaux de dégradation végétale – Statuts juridiques – Hadj Mechri (W. Laghouat).

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## I – Introduction

After the independence, the legal status of steppe lands was obtained from application of the Act of April 22, 1863 (*Senatus consults*) who shared the steppe in public land (JO, 1938), Arch<sup>1</sup> and lands which are collectively owned by the tribes. Since then, collective grasslands have suffered the adverse effects of recurrent drought, a growing population and failures of various policies of common pool resources (CPR) management. Because legal status of some grasslands remains unclear, a process of private appropriation of those lands was initiated by the agro powerful. So they became collective grasslands in a transition situation.

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<sup>1</sup> Arch: group of tribes.

Currently, what are the management methods of those grasslands? How is the legal status of the land through the agropastoralists? What are their operating strategies? We aimed in this paper to answer those questions.

## II – Methodology of conducting the survey

With the aim to understand collective management of grasslands in Hadj Mechri (HM) region (Laghouat, Algeria), a survey by questionnaire and interview has been achieved from 7/25/2009 to 8/8/2009. A rational classification is used for data analysis. It is based on two variables that are: methods of grassland management (collective or individual) which is the functional variable and overall recovery of vegetation (RGV)<sup>2</sup>.

## III – Results and discussion

First survey result indicated 19 existing collective grasslands (Fig. 1). Areas used exclusively for breeding are called *Chabka*. Those used as glazes are, called *Gaadat*. Adjacent grasslands are separated by a river, stream, trail, or simply by boundaries drawn by men.

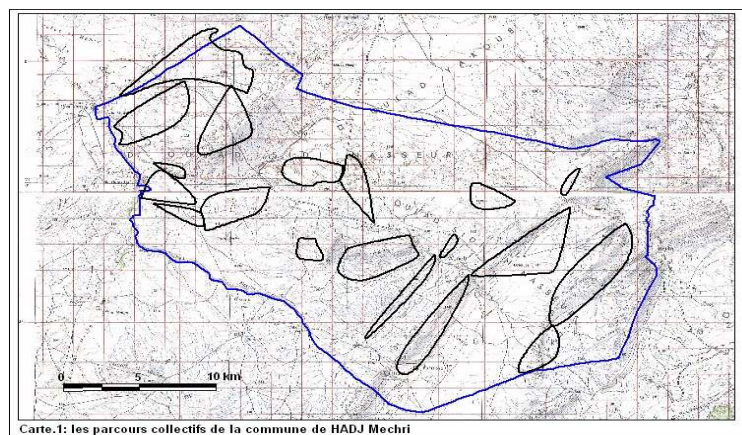


Fig. 1. Localisation of the 19 collective grasslands in the survey area.

Total population living around grasslands was 2 794 peoples gathered in 349 households. This population represented 43% of the total population of HM (DPAT, 2008). Almost all people surveyed around the grasslands are residents.

### 1. The legal status of grasslands

Collective grasslands are located on land whose legal status varies from domanial<sup>3</sup> lands, municipal lands and Arch<sup>3</sup> lands (Table 1). Grasslands have a total area of 16665 ha.

<sup>2</sup>The RGV data used are from a research conducted by Hammouda (2009), who worked on the same study area. The author has established 5 classes that are; Class 1 (RGV <12.5%), class 2 (12.5% <RGV <25%), class 3 (25% <RGV <50%) Class 4 (50% <RGV <75%) and class 5 (75%<RGV).

<sup>3</sup>Domanial land: public property; Arch land: tribe land.

**Table 1. Total area of grasslands.**

Legal status	Total area (ha)	%
Arch	2 918	18
Domanial	6 735	40
Municipal	7 013	42
Total	16 665	100

This distribution has been inherited from an application of the law of *Senatus Consults*, in 1863. As a result, the colonial administration monopolized the majority of grasslands and confined spaces of tribes in reduced areas (Boukhabza, 1982).

## 2. The grasslands and vegetation cover (RGV %)

Through the RGV, we obtain 3 separate classes (Table 2). Taken together, half of grasslands are in an average degradation situation. But if we consider the legal status, we noted that in Arch grasslands, half of them are quite good.

**Table 2. The overall vegetation cover (RGV) of grasslands (%)**

Legal status	Relatively bad	Average	Relatively good	Total
Arch	33	17	50	100
Domanial	33	50	17	100
Municipal	0	71	29	100
Total	21	47	32	100

For the grasslands state ownership, a third was considered bad, and half was in average condition, while 17% represent the good grasslands.

## 3. Access to grasslands and their tacit sharing among agropastoralists

Access to the grasslands is not free. It is limited only to residents. Because of traditional cultural considerations<sup>9</sup>, this tradition is called "*The Horma*". Another cultural and traditional value is that called "*Rih Blad*". Thus, in all the collective grasslands there is a partition of collective grasslands (Bédrani and Mouhous; 2008). However, when there are conflicts, for resolve, the community appealed to a committee of wise (*Djemaa*). Arch grasslands are shared between the two modes of exploitation. However, on collective grasslands, we see two situations: first, on nearly 80% of collective grasslands, agropastoralists report that they can graze their animals on any part of the grassland. Second, only 20% of the agropastoralists indicated they exploit the whole space of these grassland.

## 4. Types of actions contributing to assert ownership of grasslands

Certain actions confirm a form of private ownership. This is the renting of land and ploughing. Generally, grasslands are rented to anyone, including foreigners. Ploughing is also affects the collective grassland. The objective of ploughing is to assert ownership under the right to use the land. The total area ploughed is estimated to 1715 ha (10% of the total area of grasslands) (Table 3).

It must be pointed out that tillage of grasslands has been signalled in 32% of questioned agropastoralist, whereas, 37% declare that they till 10 to 60 ha.

**Table 3. Estimation of total area ploughed (%)**

Legal status	RGV	Area ploughed (ha)					Total
		0	(10 - 20)	(40 - 60)	(100 - 250)	500	
Arch	Rather bad	5	5	0	0	0	11
	Rather medium	5	0	0	0	0	5
	Rather good	0	5	0	11	0	16
Domanial	Rather bad	5	0	0	5	0	11
	Rather medium	0	5	0	5	5	16
	Rather good	0	0	0	5	0	5
Municipal	Rather bad	0	0	0	0	0	0
	Rather medium	11	5	11	0	0	26
	Rather good	5	0	5	0	0	11
Total		32	21	16	26	5	100

## IV – Conclusion

The collective grasslands still exist in the study area. Using some social values (*Horma* and *Rih Bladi*) a new organization of the exploitation of collective grasslands has erected. This excludes any agropastoralist that has no direct access to the grasslands. To bolster the claim of ownership of grasslands, agropastoralists use practices such as ploughing or renting. However, collective management of grasslands exist but are still operating rules more stringent. When family ties are strong, grassland management becomes collective with a few stipulations. When family ties are weak, collective management tends to individually by the application of rules and social organizations already mentioned.

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