

# COMMUNITY-BASED PASTURE MANAGEMENT IS A TRADITIONAL LAND-USE PRACTICE THAT CAN HELP REDUCE BIODIVERSITY LOSS AND DEGRADATION OF NATURAL RESOURCES.

Mediterranean farming, agricultural and natural areas are subject to intense ongoing anthropogenic and climatic pressures. On both shores of the Mediterranean, collective forms of land management have proved to be resilient, yet political reforms are reducing the scope of the commons and promoting an agro-pastoral development based on private appropriation. These divergent trends may sometimes lead to an overlap of land management systems at the local level (Sidiropoulou et al. 2015).

Research on rural development has long highlighted the fact that collective land management is likely to favour a diversification of land uses and help to reduce anthropic pressure on natural environments. When natural resources are scarce (soil erosion, lack of grazing grounds and water shortage), a community-based management of pastureland and cultivation practices may be a support of the sustainable development of farming systems (Napoléone et al. 2021).











#### THREATS TO THE PRACTICE

Traditional land-use practices, such as community-based grazing, are now in gradual decline. Public policies further aim to privatise and commodify agricultural land to attract agribusiness investments, thereby threatening traditional pastoral systems and marginalising local resource users (Plieninger et al. 2022). Common grazing systems are confronted with private appropriation and land management problems, climate change impacts, and reduced resource availability (Akasbi et al. 2012).

#### **RECOGNITION AND FUNDING**

Awareness for the importance of community-based grazing and other cultural land-use practices has been expressed in policy strategies such as the "Joint Programme on the Links between Biological and Cultural Diversity" of UNESCO and the "Charter of Rome on Natural and Cultural Capital" of the European Union (Plieninger et al. 2018).

More recently and on a much larger scale, several Moroccan *agdals* have been included in the International ICCA Registry, affirming their roles as *Territories* of *Life* and Indigenous and Community Conserved Areas (ICCAs). *Agdals* have also been considered as Important Plant Areas (IPAs) and Key Biodiversity Areas (KBAs) by the International Union for Conservation of Nature (IUCN), for their significance in favouring and maintaining biodiversity and ecosystem's health.

The Adaptation for Smallholder Agriculture Programme (ASAP) of the International Fund for Agricultural Development (IFAD) was launched in 2012, providing co-financing resources to scale up and integrate climate change adaptation into IFAD's investments. Projects within ASAP have focused on reducing grazing intensity and capacity building among communities to manage pastures more sustainably, notably supporting the development and implementation of community-based pasture management plans that integrate climate change and disaster risk management concerns (FAO 2012).



## 1. CULTURAL SUSTAINABLE LAND-USE PRACTICES

Community-based grazing is characterised by collective land management through customary institutions. A typical example in the Mediterranean is the pastoral agdal, a traditional land management practice that governs access to communal pastoral lands and resources, mainly by fixing opening and closing dates, as well as other regulations and complexities regarding access rights (Dominguez et al. 2012). Agdals are extended all over the Maghreb, from southern Tunisia to the Western Sahara and from Mauritania to the north of Algeria. These large tracts of land are generally abundant in water compared to their surrounding areas and are used for grazing or foraging during specific periods throughout the year. They are collectively managed by several communities with specific regulations on access rights. Another example in the Mediterranean basin is the

communal forest in Spain, which represents collectively managed upland pastures, serving for rotational livestock grazing, and that developed historically in adaptation to steep mountain conditions that are unsuitable for ploughing and cultivation (Plieninger et al. 2022). These communal forests are managed by municipalities or local communities. The forested area in common lands has grown since the 1950s, but these are facing major challenges of land abandonment, increasing aridity, and risks of wildfires, pests, and diseases.

Hima is an ancient type of community-based reserves for grazing found in Lebanon. It means "protected or forbidden place", where access and use are limited by specific rules. Hima has been a land management practice among tribal and nomadic groups in the Arabic Peninsula and Levant for more than 1400 years (Plieninger et al. 2022).



Community-based grazing in the High Atlas © Inanc Tekguo

## RESEARCH BY THE ALLIANCE FOR MEDITERRANEAN 2. NATURE AND CULTURE (AMNC)

As part of a study by the AMNC on cultural landscapes in the Mediterranean, pilot restoration actions of 3 high mountain pasture sites in Al-Shouf Biosphere Reserve (Lebanon) were conducted. AMNC has also been carrying out ethnographic research in the pastoral agdal Igourdane of the Moroccan High Atlas mountains on communal governance systems, traditional cultural practices, and local plant use. A long-term ecological monitoring in Igourdane and artificial enclosures (control sites) were also carried out in order to study and compare plant species habitats and diversity. This research showed that agdals make it possible for both vegetation cover and biodiversity within the agdals to recover from one year to the next. In the case of Igourdane, species diversity and vegetation cover is much higher than in the control sites. Having compared between non-grazed and grazed pastures as well as between community and artificial enclosures, results indicated that the traditional agdal management system generates a greater floristic diversity over time than the artificial enclosure (Moroccan Biodiversity and Livelihoods Association and Global Diversity Foundation 2020).

## 2. BENEFITS OF THE PRACTICE

#### 2.1. BIODIVERSITY

The main purpose of *agdals* is to serve as fodder reservoirs in critical periods of need while allowing for the conservation of biodiversity and the regeneration of rangeland and forest resources. The key feature of pastoral *agdals* is the timing of the opening and closing dates of the pasture in order to allow the vegetation to complete its full reproductive cycle before grazing is opened to herds of animals as varied as goats, sheep, cows, horses and even dromedaries. This herding prohibition usually takes place in a key moment of the vegetal cycle (e.g. spring), and therefore guarantees high plant and biomass growth, accompanied by the flowering, pollination and consequent production of seeds.

The *hima* system, by reducing grazing pressure, can support rangeland restoration, animal welfare, and sustainable management of water catchments.

#### 2.2. CULTURAL

The community-based grazing practices, such as *agdal*, not only help conserve the high biodiversity and ecological values of the area, but also the cultural integrity of local indigenous communities. *Agdal* has a 4000-year pastoral tradition and is based on detailed local ecological knowledge about the growth cycles of forage plants. Local people and their livelihoods, cultural rituals, and collective management are at the center (Plieninger et al. 2022).

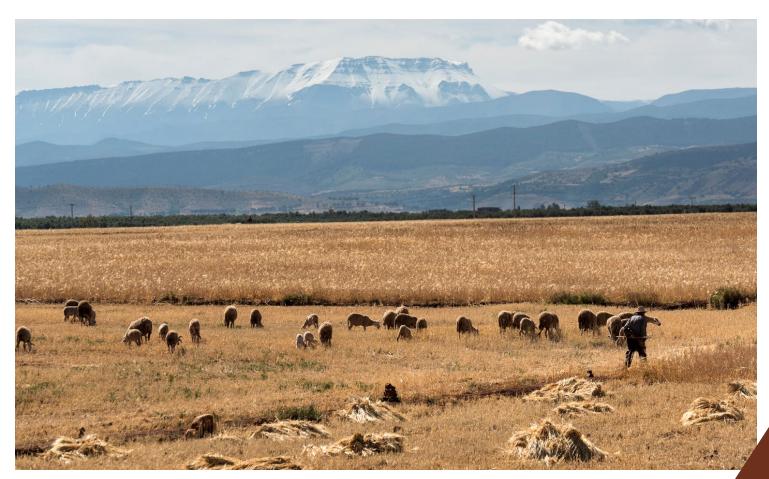
#### 2.3. CLIMATE CHANGE

Agdal systems enable local communities to sustain their herds, despite the region's challenging climatic circumstances for livestock husbandry. They provide fresh feed during the hot summer months and sometimes winter fodder, mowed by local households.

#### 2.4. SOCIO-ECONOMICAL

A sustainable community-based pasture management can help reversing the trend of destructive grazing, by using pastures more efficiently, improving fodder production and animal feeding systems, thus increasing the generated income.

More recently, *agdal* systems also support an emerging tourism industry that capitalises on distinct cultural practices and iconic landscapes. Relational values play a role in both *agdal* and *hima*, as the systems are useful for allocating scarce resources equitably among local community members, for providing social security, and for giving people influence over natural resource management.



Sheeps in the High Atlas © Inanc Tekguç

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Grazing Activities in *hima* Kherbet Kanafar, Lebanon © Jamal Hamzeh