



Food and Agriculture
Organization of the
United Nations

Pastoralism in Mongolia, a needed balance between production and sustainable use of natural resources



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Entrenched in its economic, social and political history, pastoralism is woven into Mongolian identity and nationhood. Pastoralism is an extensive animal production system specialized to environments that show a high degree of variability such as deserts, drylands, steppes, forest and steppes, tundra and high-altitude mountain ranges. It is well suited to Mongolia's sparsely populated high plains that serve as vast open pastures for livestock herds and is one of the main occupations in Mongolia.

Mobile pastoralism provides both food security and livelihood through animal source products. Rapid political, social and economic changes have brought new opportunities and threats for Mongolian pastoralists. In the recent decades the livestock numbers in Mongolia have increased by 280 percent, especially small ruminants (320 percent) that provide meat, wool and cashmere. Increased livestock numbers coupled with land appropriation for industrialisation and mining activities, as well as with the effects of climate change, have increased pressure on rangeland resources and restrained pastoral mobility.



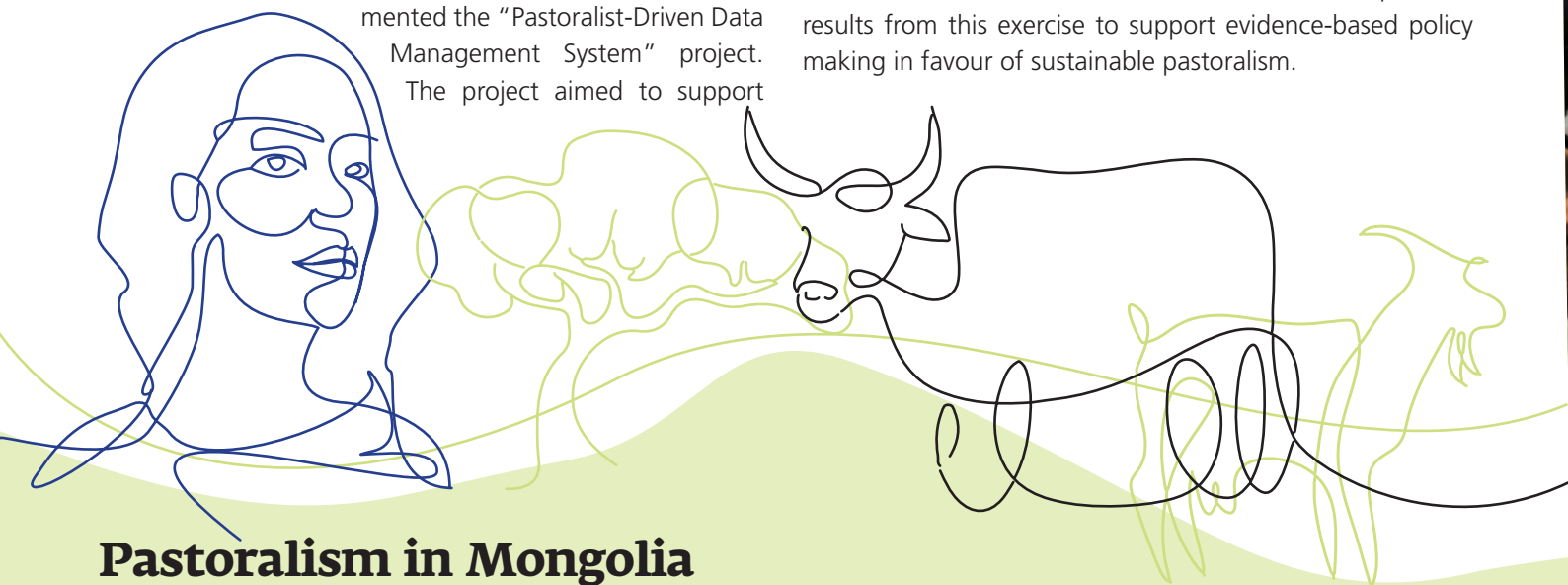
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The term "extensive" in agricultural science denotes a farming system characterized by a low productivity per animal and per surface. Those "extensive" systems can however be highly efficient in managing local resources and inputs, and in providing local ecosystem services. Pastoralism is considered as one of the most efficient way of using family labor and specialized local knowledge in semi-arid ecosystems. It results in various products and services that include natural resources conservation and social relations. Rangelands are highly heterogeneous and only exploitable under certain conditions (rainfall, but also security) so their low productivity per surface should not be an argument to support pastoralist alienation – under such circumstances, livestock often performs much better than other agricultural uses.

Pastoral and agropastoral households contribute to national wealth not only through the production and sale of animal-based products, but also through a high level of self-consumption, which is not well assessed. Accurate and reliable knowledge about the economics of pastoralism is yet to be understood at the local, regional and national levels, based on data collected on the ground. A lack of awareness of the real economic contribution of pastoralism results in a lack of investment, infrastructure, market institutions, adapted social services and tenure security for pastoralists.

FAO's Pastoralist Knowledge Hub (PKH) and the Centre de Coopération Internationale en recherche agronomique pour le développement (CIRAD) implemented the "Pastoralist-Driven Data Management System" project. The project aimed to support

pastoral organizations in Mongolia to collect and analyse primary data, provide new insights about the economics of pastoralism, and assess its contribution to national GDPs. In partnership with the National Federation of Pasture User Groups (NFPUG) and in collaboration with other public institutions, data was collected from thousands of pastoralist households. The project was implemented from 2017 to 2019 and was funded by the International Fund for Agricultural Development (IFAD). Two successive surveys were conducted in 159 sums: 1) In 2018, an exploratory survey on 112 957 households to characterize the pastoral population and, 2) In 2019, an in-depth survey on 1 938 households to collect data on household economics. This brief presents results from this exercise to support evidence-based policy making in favour of sustainable pastoralism.



Pastoralism in Mongolia

In Mongolia, as of 2017, one-third of the national labour force was employed in pastoral agriculture. Within the agriculture sector, almost 83 percent of total production comes from the traditional pastoral livestock sector, which includes 66.5 million herds, totally occupying 72 percent of the country's territory. Nomadic pastoralists in Mongolia are able to maximize scarce resources to produce animal proteins such as meat and milk, and other animal source products such as manure, hides and fibres. These are processed for domestic consumption as well as for sale, thereby ensuring food and livelihood security.

Moreover, Mongolian pastoralism has evolved in a context of risks and uncertainty. Pastoralists have adapted to shock-prone environments and overcome climate, market, disease, or other crisis-related shocks through mobility and multi-species ruminants herding. They make use of household labour and social capital to overcome extreme cold-weather episodes called *dzuds*. They practice mobility between regular seasonal camps, and also move in certain occasions to short-term grazing areas, called *otor*.

Pastureland remains in state ownership, but de facto managed as common property, although with more exclusive rights pertaining to winter and spring camps. The herding system is based on herders' movements between seasonal

pastures with ecological variations and various social organizations. Traditionally, *khot ail* were endogenously developed herding camps, usually kinship-based, which achieved increased efficiency and economies of scale in herding. With the advent of state socialism, the collective or *negdel* was made responsible for state-led reconfiguration of networks and kinship-based residence groups. Herders became members of *negdel*, for whom they herded state-owned, usually single species herds of livestock, in addition to small private herds. Since the collapse of the collective economy, Mongolia has seen a re-emergence of *khot ail* following de-collectivisation and their engagement in various forms of mutual assistance and collective action, albeit typically amongst small groups of herders who share same pastureland.

In the period from 1991 to 2018, since the return of private ownership of livestock, the number of animals in Mongolia rose from 26 to 66 million with a significant increase in the number of small ruminants. Dubbed as the "small ruminant revolution", the number of goats multiplied by 5.4 in this period to reach 27 million heads and the number of sheep doubled to reach 30 million heads. This rise in small ruminant numbers came in response to the increasing demand for meat, wool and cashmere, and resulted in higher pressures on rangeland.

Key policy actions:

- Support sustainable rangeland management through mobile pastoralism in Mongolia.
- Develop the fibre value chain in a fair and inclusive way.
- Include pastoralist civil society and organization in the process of data collection and analysis to ensure strategic relevance of the data.
- Include household self-consumption in estimates of economic contribution of pastoralism.



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Key findings

The project has shown that 74 percent of average gross revenue of a pastoral household is provided by livestock product sales. Of the gross revenue generated, it found that 88 percent comes from animal sales while 12 percent comes from fibres. This contributes to 9.6 percent of Mongolia's GDP. But, importantly, the project revealed that when self-consumption is included, average gross revenue increases by 10 percent and the contribution of the sector to the GDP rises to 11.9 percent. Household consumption of animal and agricultural products provides for subsistence needs and is crucial for overall resilience of pastoral communities.

Despite this overall increase in animal numbers, strong inequality in all categories of revenue was witnessed, with revenue from livestock sales being the most unequal, indicating inequalities in initial animal endowments. In areas such as the Steppe and the Gobi Desert, 39 percent of the household budget is spent on animal watering, which can be reduced through improved rangeland management and mobility. Further, common pasturelands are increasingly being appropriated for mining and other infrastructure and

industrial development reducing the availability of seasonal grazing resources.

At the same time, Mongolia is prone to seeing extreme weather events such as severely low temperature and *dzud* episodes that are particularly harsh on pastoralists. For example, there was a significant 30 percent decline in the national herd following the *dzud* event from 2000 to 2002. The most marginalized pastoralists tend to suffer the most given these dynamics and are squeezed out of pastoralism. With the increasing frequency and intensity of such episodes caused by climate change, there is an urgent need to secure resources, ensure fair distribution of pasture, as well as access to seasonal resources through mobility.

Therefore, it is evident that greater attention needs to be paid to the management and equitable distribution of rangelands both for ecological and socio-economic sustainability. Rangelands need to be protected from conversion to other uses to meet the growing needs of larger livestock herds and mitigate the effects of overgrazing. At the same time, the concentration of rangeland resources in the hands

of a few pastoralists needs to be prevented. Pastoral mobility lends flexibility and adaptive capacity to pastoral systems to maximize on unevenly distributed resources as well as enhances its ability to withstand shocks and uncertainties. The proposed Mongolian pastureland law may have the potential to address these issues.

Further, there is great potential for the sustainable development of the fibre value chain. With better prices and

improved market linkages supplementing pastoral breeding and grazing strategies, the fibre value chain could provide greater returns, high quality fibre and promote pastoral development. Sustainable standards for wool and cashmere are called for to secure higher overall incomes and better quality fibre as well as to ensure that benefits from such livelihood development are more equitably distributed, while ensuring sustainable grazing practices.

Conclusion

The project has fulfilled a two-fold purpose – firstly, to assess the economic contribution of pastoralism and its related aspects such as composition of herds, composition of gross revenue, inequity in resource distribution, etc. Secondly, it has developed the capacity of local civil society organizations to collect and manage their own data, paving the path for advocating evidence-based policies. Local civil society, pastoral representatives, and pastoralists themselves must be included within the process of data collection and analysis to ensure strategic relevance of the data.

Pastoralism in Mongolia makes great contribution to the economy, both at the household and national levels. Household self-consumption must be included for a true estimation of the contribution of pastoralism to food and livelihood security.

Further, the project results make a compelling case for the management and equitable and sustainable distribution of rangeland resources. Pasture resources must be opened up to common and seasonal use, and community rights over resources and access through mobility must be protected.

The fibre value chain presents new possibilities for the development of pastoralism. Ensuring training and capacity building, development of infrastructure, voluntary standards and improved market conditions will ensure the sustainable development of the fibre value chain in a fair and inclusive way.

These measures must be enshrined in policy to help distribute grazing pressure, prevent the concentration of wealth in a few hands, and enhance the pastoral economy overall.

References:

- **Wane A, Cesaro JD, Duteurtre G, Touré I, Ndiaye A, Alary V, Juanès X, Ickowicz A, Ferrari S, Velasco G.** 2020. *The economics of pastoralism in Argentina, Chad and Mongolia. Market participation and multiple livelihood strategies in a shock-prone environment.* FAO Animal Production and Health Paper No. 182. Rome. FAO & CIRAD co-edition. [also available at <https://doi.org/10.4060/cb1271en>]
- **International Land Coalition (ILC).** 2016. *Nomadic Custodians - A case for securing pastoralist land rights.* Italy : Rome. (also available at https://www.landcoalition.org/en/resources/Nomadic_Custodians_A_Case_for_Securing_Pastoralist_Land_Rights/)
- **Upton, C.** 2008. Social capital, collective action and group formation: developmental trajectories in post-socialist Mongolia. *Human Ecology*. 36(2), 175-188. DOI : 10.1007/s10745-007-9158-x
- **Upton, C.** 2012. Managing Mongolia's Commons: Land Reforms, Social Contexts, and Institutional Change. *Society and Natural Resources*. 25:2, 156-175. DOI: 10.1080/08941920.2011.597494
- **Centre for Policy Research.** 2016. Final report : *Support to the consultation process on the pastoral land law in Mongolia, in the light of the voluntary guidelines on the responsible governance of tenure of land, fisheries and forests in the context of national food security.* Mongolia : Ulaanbaatar. (also available at https://cpr.mn/wp-content/uploads/2017/08/Final-Report_December.pdf)



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