





International Rangeland Congress

Joint XXIV International Grassland and XI International Rangeland Kenya 2021 Virtual Congress

CONGRESS PROCEEDINGS

VOLUME I

Theme: Sustainable Use of Grassland and Rangeland Resources for Improved Livelihoods







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Citation: KALRO 2022. Mureithi J.G., Nyangito M.M., Wamuongo J.W. Njoka J., Nyambati E.M., Miano D., Mbuku S., Okoti M., Maritim F. (eds.). Sustainable Use of Grassland and Rangeland Resources for Improved Livelihoods. Proceedings of the Virtual Joint XXIV International Grassland and XI International Rangeland Congress – Oral Papers, held in October 25-29, 2021, Nairobi, Kenya. Kenya Agricultural and Livestock Research Organization (KALRO) 2022.

ISBN: 978-9966-30-093-5

Rangelands and pastoralism of the Middle-East and North Africa, from reality to dream

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Keywords: Customary; Governance; Recognition; ICCAs; Paradigm-shift

Abstract

The Middle East and North Africa (MENA) is a vast area covering 20 countries from western Asia to North Africa, with nearly 9,000,000 Km2 and 303 million hectares of total rangelands. Rangelands play an essential role in supporting people's livelihoods and food security. Mobile pastoralism is the most viable and resilient form of production and land use in the fragile drylands of MENA. However, the region's governments have considered nomadic pastoralism backwards mainly because it was challenging to deliver mobile services. They designed various policies that were not in harmony with pastoralists' customary rules and norms and severely weakened their mutual aid associations and governance systems for natural resources management. Nowadays, pastoralists' rangelands and customary territories are shrinking, fragmenting, and degrading due to various reasons, but mainly the expansion of agricultural or industrial needs. Based on pastoralists and rangelands' socio-ecological values, the world needs to apply the evidence-based experiences and Indigenous knowledge of pastoralists in preventing rangeland degradation. It is urgent to start a new paradigm shift for an inclusive interaction, establishing propoor livestock policies. These policies would address the barriers and bottlenecks faced by pastoral and agro-pastoral communities and secure land tenure at community and landscape levels through multistakeholder dialogue, including during the International Year of Rangelands and Pastoralists (IYRP). It is time to call for respect of customary governance systems of pastoralists, recognition of their territories as Indigenous and Community Conserved Areas (ICCA³s—territories of life) under various and norms in the region like Oorog, Hima, Agdal, and any other form of local conservation to prevent fragmentation of pastoralists territories and rangelands degradation leading to desertification.

Introduction

The MENA region covers 20 countries from western Asia to North Africa with nearly 9,000,000 Km2. Algeria is the largest, and Bahrain, an island in the Persian Gulf, is the smallest country in the MENA region. Out of 5.3 billion hectares of rangeland globally, 303 million hectares are located in the MENA region (Asadian *et al.*, 2016). In terms of topography, it is quite variable. In the north, the region is ringed by several important mountain ranges. Lesser chains of hills and mountains extend along with the coastal areas of the eastern Mediterranean. The region enjoys a wide range of elevation from -417 m Above Sea

Level at the Dead Sea in Jordan to 5,610 m ASL at Mount Damavand in Iran. The Mediterranean bioclimate affects the region, characterised by a long, semi-hot, dry summer, and cold, rainy and snowy winter, and enjoys an arid and semi-arid climate with low and erratic rainfall. However, the vicinity to the sea and the topographic characteristics mean that some humid areas can be found close to desert areas where annual precipitation is less than 100 mm. More than 50% of countries' land area is very dry, except Lebanon, Morocco, and Tunisia. Almost 83% of other Near East countries are in arid and desert zones. Existing vegetation results from a long history of human activities and ecological conditions: climate, topography,

³ Indigenous Peoples' and Community Conserved Territories and Areas (ICCA), A globally applicable governance type for areas and territories under customary management, <u>https://www.biodiversitya-z.org/content/indigenous-peoples-and-community-conserved-territories-and-areas-icca</u>

and soil. The Middle East's dominant vegetation types are steppe and deserts that belong to the Irano-Turanian botanical province consisting of *Chamaephytes* and *hemicryptophytes*.

The MENA is the origin of livestock's domestication, practised through mobile pastoralism, pastoralists who search for feed and water and escape harsh climates. Based on the latest census, 419,116,760 people live in the MENA region (Wikipedia-population of MENA Countries). The percentage of rangelands of countries in the MENA region varies from 0% in Bahrain to 33% in Tunisia to more than 50%, Iran (52%) and Jordan (90%). The land tenure system has been one of the region's major constraints of rangeland management. Rangelands are grazed free of charge for enduring religious and cultural reasons. Rangeland boundaries and grazing territories are not determined or assigned to village communities or tribes. Despite laudable attempts in several countries, in the absence of a proper and clear land tenure system, today's users have no incentives to invest and manage properly rangeland resources used on the "first-in, firstserved" principle.

Land tenure in the region has its origins in state, customary or religious law, or more often, a combination of the three. In some countries like Tunisia, privately owned rangelands remain important (28%). The traditional tenure systems across the region have largely changed within the constructs of colonialism and the nationstate. These constructs hamper management policies and strategies because of the limitations of generalities. Thus individual country studies are highly needed to prepare a clear picture of what is going on in each country. For pastoral communities, access to natural resources is a vital means of generating livelihoods and accumulating wealth and transferring it between generations. Therefore, how land rights are perceived will have a significant bearing on the family's ability to meet subsistence, supply income, in cases establish status, make a non-observable effort, and make investments. Local people live in a complex legal system and will often be motivated by various legal sources other than "official" law, such as religious and customary law. "Locality" and the conceptual framework of "legal pluralism" are key notions of an emerging paradigm adopted here on the relations between law and social behaviour.

Historically, property rights in the official law of the region have coupled Islamic principles and customary laws with the state's or ruler's demands to secure rights. State power tended to dissipate beyond the seat of governments. For a long time, the state's formal legal system, the *qanun*, co-existed with customary law, '*urf*. Whereas the *qanun* was by definition written, the '*urf* was largely unwritten. To some degree, the *qanun* often confirmed existing local customs. Simultaneously, it has also been recognised that custom is one of the sources of Islamic law, *shari>ah*, itself a pillar of the *qanun*. With the ascendancy of the nation-state, official legal systems sought to entrench sovereignty overland with the abolition of customary law and the evolution of shari'ah to deal with modern needs of economic development. Often this has meant a degree of secularisation in property rights.

Indigenous and Community Conserved Areas (ICCA) — Territories of Life Phenomenon

"ICCA-territories of Life" is the name proposed to explain the situation when communityterritory association is combined with effective local governance and conservation of nature (Borrini et al., 2016). Pastoralists' history of nature conservation dates back to thousands of years based on their strong social organisation, identity, collective production, and adaptation of their governance systems to complex ecological conditions in different ecosystems (Naghizadeh et al., 2012). In most indigenous cultures, it is possible to find a phenomenon that is so strong and natural to be nearly invisible. Since the beginning of the second millennium, this phenomenon has been purposefully singled out as one of humanity's essential features, in jeopardy because of current social and ecological change. 'ICCAs' refers to this age-old, widespread, diverse, dynamic phenomenon, territories, and areas conserved by indigenous peoples and local communities. Worldwide, there is a wide variety of ICCAs, differentiated based on ecological, socio-cultural, political, and economic features, such as Aqdal in Morocco and Tunisia, Qoroq in Iran, Hima in the Arabian Peninsula, and adjacent countries such as Syria and Jordan. This is a traditional practice regulating access to grazing lands to support the restoration of natural resources, which can be defined as a seasonal prohibition. It is the most widespread and longstanding Indigenous conservation institution in the MENA region and perhaps on Earth. In the last decade or so, the ICCAs have gained significant recognition at international and national levels by IUCN, Convention on Biological Diversity (CBD), UNESCO Intangible and Cultural Heritage, and indirectly through a range of international human rights, agricultural, development, and other instruments. Despite the visible progress in

recognising and supporting ICCAs, there remain huge weaknesses and gaps - most countries have no or very inadequate legal and policy mechanisms to respect Indigenous peoples and local communities (especially concerning territorial, collective, and tenurial rights). In many regions, the existing policy environment works against the interests of mobile pastoralists (Kothari *et al.*, 2012).

Key issues of rangelands and pastoralists in the MENA region

Pastoralists are important societies through their vital role in food production in the MENA region. However, nowadays, various issues threaten their existence as follows:

Issues affecting rangelands and pastoralists

- Lack of recognition of pastoralists' customary governance systems and land tenure rights;
- Forced and induced sedentarisation and nationalisation of natural resources;
- Weakening of pastoralists' sense of ownership has caused unsustainable use of the rangelands;
- Conflict over rangelands among mobile pastoralists, state authorities, and settled communities;
- Fragmentation of pastoralists' territories and rangelands degradation due to land-use change;
- Climate change consequences such as severe floods, recurrent and prolonged droughts, etc.;
- Improper delivery of mobile services, i.e., veterinary, health, energy, water points, education;
- Lack of financial support to enhance pastoralists' contribution to the economy and food security;
- Transboundary diseases as a threat to local breeds and livestock mortality.
- Knowledge and science gaps about pastoralism and rangelands
- Insufficient research on socio-economic and ecological values of rangelands and pastoralists;
- Lack of appropriate recognition and integration of indigenous knowledge with modern science;

- Evaluation of the impact of inappropriate policies on rangelands restoration and pastoralists governance;
- Lack of documentation of good practices on ICCAs—territories of life such as Hima, Aqdal, Qoroq, and other traditional conservation approaches by pastoralists;
- Less attention to local livestock breeds adapted to climatic hazards risk;
- Lack of research about the economic viability of pastoralists and their contribution to food security;
- Actions proposed to conserve pastoralist>s territories at various dimensions
- Advocate for legal recognition of pastoralists' customary governance and land tenure systems;
- Empower pastoralists customary governance institutions through the self-strengthening process;
- Build trust among researchers, governmental institutions and pastoralists, and alliances for participatory review and reversing inappropriate policies;
- Lobby for awareness-raising about the importance of rangelands and pastoralists through IYRP;
- Create a research agenda on the resilience of pastoralists and their contribution to food security;
- Recognise pastoralists' customary territories, through robust legal frameworks, to prevent allocation of their lands to other purposes such as large-scale development projects;
- Develop a dynamic map on the status of rangelands and pastoralists territories with the aim of legal and practical conservation of pastoralists territories worldwide;
- Support adaptation strategies of pastoral communities to climate change issues (such as seasonal migration) and strengthening their internal resilience systems;
- Assess the vulnerability of pastoralist's production systems to cope with climate change;
- Support pastoral communities to establish their institutions and coalitions based on their customary governance systems and recognition at various levels to play a key role towards sustainable pastoralism;
- Establish self-organised funds and institutions to strengthen the mobility of their life through various innovations in sustainable pastoralism and land management initiatives;

- Provide mobile services on health, veterinary, education, etc. to sustain their way of life;
- Build capacity of pastoral youth and allocation of financial resources and incentives for entrepreneurship and innovations in support of sustainable pastoralism;
- Incorporate pastoral production as one of the foundations of the local and national economy;
- Share experiences and mutual learning between pastoralists at various levels;
- Support pastoralists to save livestock genetic diversity and locally adapted breeds;
- Invest in strong advocacy on socio-ecological values on pastoralists to encourage pastoral youth to conserve their bio-cultural diversity.

Conclusion

Considering the critical value of pastoralists and rangelands in different dimensions, the world needs to take action. Action on multistakeholder alliances and dialogue to document, expand and apply the evidence-based experiences and indigenous knowledge of pastoralists in preventing rangeland degradation. Increased rangeland degradation is the last call for an urgent change of policies and actions toward strengthening pastoralists' governance institutions and legal recognition of their vital role in restoring and conserving fragile rangelands ecosystems worldwide. A paradigm shift is needed to overcome the knowledge and policy gaps—particularly changing typically expensive and inefficient governmental bureaucratic range management systems to territory-based sustainable range management and appropriate integration of indigenous knowledge with relevant modern science to manage rangelands.

The IYRP could provide a forum to debate and advocate the customary rights of pastoralists over their ancestral territories and natural resources. Various best practices and examples of traditional approaches in various ICCAs can demonstrate effective governance approaches. Another important priority is building synergy among the existing international policy instruments to enhance legal recognition of pastoralists' customary rights over their territories and resources at various levels. The policy instruments such as The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) "Art. 31.1"; the Programme of Work on Protected Areas (PoWPA) of the CBD; the Nagoya Protocol on Access and Benefit-sharing; and the Land Degradation Neutrality (LDN) of the UNCCD. The IYRP can help develop a strategy and action plan to alleviate rangelands degradation and stop discrimination about pastoralists' society in different dimensions. This can be done by strengthening their customary institutions via renewed self-strengthening, internal cohesion, and more powerful coalitions and federations at various levels. Supporting the establishment of pastoralists associations and federations will likely help them stand up as legally recognised actors, for effective dialogue and collaboration with state agencies and capable of playing a significant role in policy influence and decision-making processes

References

- Borrini- Feyerabend, G and Farvar, M.T. 2016. *What are ICCAs? COP13 of the UNCB, Cartagena MOP8* – *Nagoya*, MOP2, ECO Volume 54, Issue 2.
- Farvar, M.T., Borrini-Feyerabend, G. and Foggin, M. 2018. *Whose 'Inclusive Conservation'?* Policy Brief of the ICCA Consortium, Issue No. 5.
- FAO. 2011. Forests and rangelands in the Near East region: Facts and figures, p.111
- Gintzburger, G., Le Houérou, H.N. and Saïdi, S. 2006. Near East-West Asia arid and semiarid rangelands. Sécheresse, 17 (1-2) : 152-68.
- Kothari, A., Corrigan, C., Jonas, H., Neumann, A., and Shrumm, H., (eds). 2012. Recognizing and Supporting Territories and Areas Conserved by Indigenous Peoples and Local Communities: Global Overview and National Case Studies. Secretariat of the Convention on Biological Diversity, ICCA Consortium, Kalpavriksh, and Natural Justice, Montreal, Canada. Technical Series no. 64.
- Krätli, S.; Huelsebusch, C.; Brooks, S. and Kaufmann, B. 2013. Pastoralism: A critical asset for food security under global climate change *Animal Frontiers*, 3 (1), January 2013.

- Naghizadeh, N., Didari, A. and Farvar, M.T. 2012. Recognition and Support of ICCAs in Iran. In Kothari A., with Corrigan C., Jonas H., Neumann A. and Shrumm H. (Eds). Recognition and Support of Territories and Areas Conserved by Indigenous Peoples and Local Communities in Iran, A National Case Study. ICCA Consortium, IUCN/TILCEPA, Kalpavriksh, and Natural Justice. *CBD Secretariat Technical Series No. 64*.
- Nori, M., Switzer, J. and Crawford, A. 2005. *Herding on the brink: Towards a global survey of pastoral communities and conflict.* International Institute for Sustainable Development, Winnipeg, Canada.
- Rae, J. 2002. An Overview of Land Tenure in the Near East Region (Part 1), pp. 302
- Robinson, T.P., Thornton P.K., Franceschini, G., Kruska, R.L., Chiozza, F., Notenbaert, A., Cecchi, G., Herrero, M., Epprecht, M., Fritz, S., You, L., Conchedda, G. and See, L. 2011. *Global livestock production systems*. Rome, Food and Agriculture Organization of the United Nations (FAO) and International Livestock Research Institute (ILRI), pp.152.





International Rangeland Congress

ABOUT THE JOINT INTERNATIONAL GRASSLANDS AND RANGELANDS CONGRESS

International Grassland Congress (IGC)

Grasslands cover a very large portion of the earth's surface and are important as a feed source for livestock, as a habitat for wildlife, environmental protection, carbon sink and for in situ conservation of plant genetic resources. In developed and developing countries, many millions of livestock farmers, ranchers and pastoralists depend on grasslands and conserved products such as hay and silage and on a range of fodder crops for their livelihoods. Grasslands also contribute significantly to cropping systems, with a large part of crop yields being dependent upon the benefits of the pastures and herbaceous legumes. The International Grassland Congress is held in every 3-5 years and promotes interchange of information on all aspects of natural and cultivated grasslands and forage crops for the benefit of mankind, including sustained development, food production and the maintenance of biodiversity. It is the major international forum for scientists involved in grassland and livestock R&D and for people managing one of the world's largest natural resources. The International Grassland Congresses have spanned the globe in its close to 100 years' history and have been held on every continent with the last five in Brazil, Ireland, China, Australia, and India, this one in Kenya and the upcoming in the United States in 2023.

International Rangeland Congress (IRC)

Rangelands, primarily covered by natural vegetation, provide grazing and forage for livestock and wildlife. Rangeland and grassland ecosystems provide benefits vital to agriculture and the environment including: grazing and forage for livestock and wildlife; watersheds for rural and urban uses; habitat for plants, insects, and animals; water for sustainable landscapes; areas for recreation activities; and potential renewable energy and mineral resources. The International Rangeland Congress (IRC) is held every 3-5 years and its aim of the IRC is to promote the interchange of scientific and technical information on all aspects of rangelands: research, management, extension, education, training planning, and development. The last five congresses have been held in Australia, South Africa, China, Argentina, Canada, this one in Kenya and the upcoming in Australia in 2025.



The aim of the Joint XXIV International Grasslands and XI International Rangelands Congress was to promote the interchange of scientific and technical information on all aspects of grasslands and rangelands. This Joint IGC-IRC Congress was hosted by Kenya, 25th – 29th October, 2021

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