

XII IRC Conference Adelaide 2025

Proposal for a Workshop on May 31st-June 1st 2025

“Considering multifunctionality of pastoralism to foster fruitful contributions of pastoralism to growing societal challenges?”

Rationale

One billion people in the world depend on livestock farming, and grazed grasslands cover more than 40% of the world land (WRI, 2000). The social-ecological systems that are Livestock-Grazing, including rangelands-pastoralists ones, secure diverse functions contributing to the delivery of the Sustainable Development Goals, including: nutrition and food security, rural income and savings, food trading and agro-industries, soil fertility and crop fertilizers, bio-based products, tillage and rural transportation, leisure, landscape, social relationship, medicine, etc. Pastoralism, under the lights of the International Year of Rangelands and the Pastoralists (IYRP 2026) specifies three dimensions of livestock grazing systems : the mobility of the herds and flocks to gain access to various pastures, but also to crops residues and forests; the natural vegetation of rangelands, including herbaceous species but also shrubs and tree ; the lifestyle and working conditions attached to the continuous shepherding of animals merging animal, vegetation and human rhythms.

Livestock grazing systems face challenges related to their impact on the environment at both the local and global scale, especially regarding greenhouse gases (GHG) emission, biodiversity conservation and water cycle. Other social and economic challenges exist including adaptation to climate change; volatile financial markets; succession including the absence of youth to continue the work and access to technology and resources.

Moreover, mono-criteria assessments that focus on animal production, greenhouse gas emissions, carbon-sequestration capabilities, threats/preservation of biodiversity, etc. fuel a controversial view of the activity and do not help to think about a future by maintaining its own characteristics... Are there specific ways to chart the future of this activity beyond proposals to intensify productions that reduce its own capacities as a low-input activity? Its links to valorisation of heterogenous grazing resources even distant one from one other for a production that saves on operational costs, to the use of lands that are at the crossroads of various interests, to its social and environmental contributions, its typified productions and harsh breeds, its cultural identities that these types of livestock system assert are regularly brandished to contribute to a more positive vision of the activity. But they sometimes freeze the LGS, and particularly pastoralism, in a timeless and conservatory permanence more than prospective.

Delivering these multiple functions while addressing the challenges requires their qualification and quantification and an understanding of the trade- offs that are made under differing contexts to inform the choice of practice and policy put in place to optimise the outcomes sought. A more objective and holistic assessment of the large multifunctionality of these livestock grazing systems might be one of the possible ways to draw and support their future. The Action Network “Restoring Value to Grassland” of the multi-stakeholder platform Global Agenda for Sustainable Livestock (GASL) organize this Workshop to enrich debates about this approach.

The Workshop will build on the previous three workshops held by our group in conjunction with the International Rangelands Conference in Hohhot in 2008, Rosario in 2011, Saskatoon in 2016 and

virtually in Nairobi in 2021. It will be supported by the World Bank, FAO, Global Agenda for sustainable livestock (GASL), the French ministry of Agriculture and Food Sovereignty and the French Agricultural Research Organisations (INRAE, CIRAD). It will be held in conjunction with the XII International Rangeland Congress in Adelaide (Australia), June 2-6 2025. Considering the IYRP proximity, a special attention to pastoralism, as a social – ecological system, will be encouraged, in consistency with the contributions of these organisms to renew their research strategies on the viability and resilience of pastoral systems, on the attractiveness for the youth and women, and the concertation approaches with various land use stakeholders.

Workshop Purpose

The workshop purpose is to support and strengthen the value of grasslands/rangelands within development pathways and enable stakeholders to make informed decisions, practice and policy by: i) making transparent the functions desired from livestock grazing systems from a range of stakeholders under differing contexts and ii) identifying tools, frameworks and science to support the navigation of trade-offs. Thus, its aims are to:

- revisiting the concept of multifunctionality;
- reporting on the work undertaken for several years within the framework of GASL Action Network “Restoring value to grassland” on case studies in contrasting contexts throughout the world and to identify the lessons learnt from cross-cutting analysis;
- comparing these approaches with other works carried out in different regions of the world on livestock grazing activity and pastoralism;
- elaborating on experiences for recommendations on the research priorities to be pursued as well as the design and support to appropriate public actions.

As the Workshop should also be considered as a step in the preparation of the International Year of Rangelands and Pastoralists (IYRP) in 2026, a specific attention to pastoral situations, from all continents, will be encouraged. It's not only a question of discussing the future pathways for pastoralism through the multifunctionality lens, but also of learning from these particular forms of livestock grazing systems, their resilience capacities, their strengths and weaknesses to address other livestock systems future.

What contributions are expected to deal with?

1 Livestock grazing systems as complex systems

Livestock Grazing Systems (LGS) are complex systems, due to strong links between ecosystems, human society and animal management, and in order to identify where best to act to maximize positive outcomes a holistic understanding of system components and behaviors is required relying on following dimensions:

- The agro-ecological, social and historical contexts within which livestock systems have developed;
- Heterogeneous stakeholders having developed diversified knowledge about local ecosystems and having different expectations for livestock activities (economic returns, local product, ...);
- Ecosystem services, cultural symbols...) and for herder's families (viability, security, sustainability...);
- A complex bundle of access and usage rights for natural resources, including land and water
- A specific environmental policy and a body of collective actions;

- A complex network of livestock value chains specific to local products, traditional food habits, local commercial circuits or primary products flows oriented towards urban markets or export.
- The working conditions and communities' lifestyles attached to the daily taking care of the herds and flocks, the shepherding to protect and feed and the mobility (transhumance and nomadism) of the human and animals together. What skills and learning processes in a changing environment, what satisfaction at work considering the various facets of the professions, what empowerment opportunities for women, what interest and attractiveness for the youth?

We invite contributions exploring these facets of livestock and pastoralism seen as complex systems, and connecting them into holistic approaches

2 The dimensions of the LGS assessments and system modelling

During the Saskatoon workshop, a conceptual model (ontology¹) of LGS was developed using an iterative process with multi-stakeholders (researchers, farmers, local community, and policy) to build model concepts, indicators, and simulation models relevant across a range of contrasting livestock biomes and contexts located on five continents. Four main dimensions emerged and were agreed: production, social, local development and environmental. Since the workshop, dynamics of the GASL Action Network 2 has been carried on in 8 case studies in the world (Argentina, Brazil, China, France, Mongolia, New-Zealand, Senegal, Vietnam) (see Ickowicz et al., 2022²). The ontology has been applied in some of them where it can form the basis for future simulation models to explore the impact of "what if" strategies and scenarios across the system to identify trade-offs and synergies. In this way the full contribution of LGS will be made transparent and better guide policy design.

We invite contributions exploring assessment methodologies applications: what dimensions are developed, for what purpose and for what contributions to the future of livestock grazing systems and pastoralism

3 Practices and policy changes

Moreover, the works carried on these last years by the GASL AN2 group have pointed out 3 main items related to multifunctionality, arising from the different cases, from which we can now elaborate collectively on practices and policy changes that foster the pathways to implement livestock sustainability:

1/ How to design and facilitate collective action within arenas appropriate to each situation:

- Inviting relevant stakeholders, i.e. who are they? Identifying the missing ones without them it will be difficult to act, and then how to make them interested to participate?
- How to facilitate the collective work (skills, tools, etc.) from full collective to focus groups?
- Capitalizing what could be considered as acquired/learned by the stakeholders committed in the collective action (state of agreements/disagreements on the situation, reformulation of the

¹ An ontology is a semantic upper layer on structured information, it describes relationships between structured information in order to share it within a diversity of situations and to identify what is generic beyond the cases

² Ickowicz A., Hubert B., Blanchard M., Blanford V., Cesaro J.-D., Diaw A., Lasseur J., Le Thi Thanh H., Li L., Rogerio Martins M., Cangussu M., Müller J.-P., Quiroga Mendiola M., Quiroga Roger J., Anibal Vera T., Ulambayar T. Wedderburn L. (2021) Multifunctionality and diversity of livestock grazing systems for sustainable food systems throughout the world: Are there opportunities for Europe? *Grass Forage Sci.*: 1-13.

issue in order to make it manageable and exploring new dimensions that have to be considered to go further

2/ How to catch the knowledge needed for multifunctionality approach to move forwards in the collective action built in this way?

- Taking stock about the knowledge still available by the different participants
- Revealing the hidden knowledge by some stakeholders, because they don't want sharing it or, more commonly, because they hesitate to tell about it, because it is often knowing by doing practitioners not used to express themselves
- Producing new knowledge to better consider multifunctionality... by doing, by implementing research, by mobilizing existing knowledge in other situations (inviting some experts, examining the literature ...)
- Identifying agreements and disagreements among stakeholders about the role of livestock in territorial development? Design collectively pathways for more sustainable livestock in the territory
- Identifying actions and which actors that can implement change through practice and policy changes

*3/ How to assess the changes that will appear by **transformative actions**?*

- What is expected to change emerging from the local arenas?
- How to measure it (relevant indicators, facts, policy text, regulations, change in discourses of diverse stakeholders, ...)
- Starting to characterize them from now in order to assess the forthcoming changes

We invite contributions that aim to build on and gain approval for this work to put to the test and improve tools, practices and policies that can be applied to guide pathways that enhance sustainable local development. We also invite other contributions that develop alternative ways for transformation, resilience, multistakeholders concertation and well-being of practitioners, livestock and pastoralist systems. It relies on (i) linking international policy debates (Food Security; Climate Change; Biodiversity; Employment) to local stakeholders' expectations from livestock activities (ii) identifying, characterizing and articulating the different functions of LGS at different scales and in different agro-ecological and socioeconomic situations (iii) consolidating "innovation", "knowledge issues" and "efficient support actions" to progress towards sustainable strategies and projects for LGS, in the spirit of IYRP goals.

A social learning approach built on achievements to date

Following Steyaert et al. (2007³), the assumption here is that agreements built on a shared appreciation of reality are more likely to be long-lasting, thinking that the social productivity of controversies is allowing exploration and stabilisation of states of the world and of communities through the convergence of perspectives. Stakeholders determine the remedial actions to be undertaken through a modus operandi based on shared, co-constructed agreements rather than by means of compromise between conflicting interests. Stakeholder interactions centered on the issues we are dealing with take place at several decision levels and in different sorts of social spaces. Understanding what takes place

³ Steyaert P., Barzman M., Billaud J.-P., Brives H., Hubert B., Ollivier G., Roche B. (2007) The role of knowledge and research in facilitating social learning among stakeholders in natural resources management in the French Atlantic coastal wetlands. *Environmental Science and Policy*, 10: 537-550.

at the local level is particularly valuable since this is where people have a practical and experiential relationship with the objects and processes that are to be managed. In our experience, required changes (e.g., in land use, in management practices) are most likely to emerge from action, social relations, and experiences that take place locally where interdependencies can be explored practically. This perspective does not escape the fact that the 'local' level is linked to the 'global' level through institutional or political structures.

It follows from these assumptions that technical and organisational change cannot merely be prescribed (e.g., through regulations) but also calls for the implementation and management of deliberative processes that might lead people to change their understanding of the situation and consequently to adapt their practices. Our approach to the study of social learning is limited to the observation and facilitation of such deliberative processes. From our perspective, social learning is defined as an iterative process of knowledge co-production (i.e., of 'knowing') among stakeholders brought into interaction. Knowledge here is understood as an individual's point of view on entities constituting the world.

How?

This workshop will be built on case studies (oral presentations and posters), illustrating how multi-functionality of LGS is being understood, valued and addressed within the projects, and how they are supported – or not – by current public/policy actions. These presentations will rely on the international network of field sites of GASL and on an open call for other contributions. The presentations will be used as a catalyst to inform participatory sessions where debates involving several actors from the different terrains will allow for greater learning from different world views and deeper reflection and identification of concrete propositions. Participation is opened to all IRC attendees and speakers will be selected among academic, development, NGOs, policy, and private sector representatives. Material describing the work to date will be pre-circulated to attendees.

As mentioned above, we encourage contributions based on pastoralism case study – as a specific declination of livestock grazing systems - and wish to produce a policy note containing ideas, recommendations either for research, action transformation and public policies that will target specifically the future of these systems, note that will be presented to the IYRP coordinators.

Agenda

The workshop will last 2 days May 31st and June 1st 2025

Session 1 (Saturday May 31st, 9.00 - 13.00): Open presentation of guidelines / frameworks to assess multi-functionality. Presentation of case studies on the multi-functionality of LGS, knowledge available and gaps; and the ways this knowledge is integrated (or not) in development projects and simulation models. Presentation of posters.

These presentations will cover a diversity of local situations including pastoralism ones and their contexts regarding global level. So, the main objective is describing the variability and dynamic of functions and values of LGS, as well as the diversity of the stakeholders involved.

Session 2 (Saturday, May 31st, 14.00-17h30): working groups on a “world café” basis:

- (i) To explore the facets of LGS systems from a large diversity of point of views
- (ii) To elicit the relationships within and between the dimensions to build assessments frameworks and construction of dynamic models such as simulation models to explore scenarios across the system and to identify trade- offs and synergies;
- (iii) To understand how stakeholders are viewing the different dimensions of the multi-functionality that are critical for strengthening the future of LGS, and from this identify how public policies can enable these situations.

Session 3 (Sunday, June 1st, 9.00- 13.00): Synthesis of the working group sessions. Requirements for new concepts and knowledge for project design, management and guidelines for development projects, integrating modelling and stakeholder’s policy analysis

Session 4 (Sunday, June 1st, 14 h00-17.00): Wrap up of the workshop. Next steps for a collaborative program.

Outputs

- An inventory and description of values, functions and indicators related to LGS in contrasted agro-ecological and socioeconomic contexts at different levels;
- A conceptual model and methodological proposals to define, qualify, quantify and integrate these values in a global approach for grazing system management;
- A framework to structure conversations with stakeholders on values, functions and trade-offs;
- Guidelines and examples of tools (simulation models, serious games, ...) for identification of policy options incorporating multifunctionality
- Key-elements for a research agenda supporting LGS development, for a better articulation between local and global stakeholders’ strategies;
- Booklet of posters/presentations of case studies;
- A policy note on rangeland and pastoralists gathering what has been discussed on the different items and suggesting recommendations either for research, action transformation and public policies that will target specifically the future of pastoralism.

Call for poster contributions of case studies, illustrating

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how multi-functionality of pastoralism is being understood, valued and addressed within analysed projects

Guidelines for submission of abstracts

General information

Abstracts (200 words max) of posters (format A0) in **English** are expected by January 15th, 2025

Submission by e-mail to the following address: workshop-multifunctionality@agropolis.fr

Title of abstract

Presented	by	XXXXXXXXXXXXXXXXXXXXXXX
Authors	first name and family name	¹ , co-authors ²
<i>contact details and e-mail addresses of authors¹ and co-authors²</i>		
Background/Introduction: abcde		
Description/purpose/Objectives: fghikl		
Lessons	learned/Results:	mnop
Conclusions/Next steps: qrstuvw.....		