## Summary of IRC Papers Covering Subthemes on Pastoralism and Rangelands

## **Review**

This is an informal, preliminary review of submitted papers. No posters are included at this time. A more formal review will be conducted in the context of preparing summary documents for the final IRC proceedings volume.

Sixty-two papers have been reviewed. The numbers of papers are markedly imbalanced with regards to regional representation. The top-ranked regions in terms of representation are sub-Saharan Africa (29% of papers), China and Mongolia (18%), central and southern Asia (11%), North America including Mexico (8%), North Africa and the Middle East (8%), Latin America (6%), Europe (3%), and Australia (0%). Sixteen percent of papers, in contrast, offer global perspectives. Overall, the world's most economically developed nations are clearly under-represented in this pool of submissions. Temperate and tropical or subtropical biomes have received fairly balanced attention, however. One perception of this author is that the total number of paper submissions appears to be low compared to previous IRCs. This remains to be confirmed.

While a temporal analysis remains to be done with regards to the common features of pastoralism papers from previous IRCs, it is speculated here that the research approaches pursued today have taken a decided turn away from traditional environmentally based studies and gravitated much more towards incorporation of social-science questions (i.e., livelihoods, policy, gender, genesis of knowledge, effective governance, valuation of ecosystem services, political transitions, etc.) and social-science methodologies (i.e., surveys, interviews, focus groups, participatory engagement, action research, interactive planning, role playing among stakeholders, etc.).

Seventy-seven percent of papers are based on efforts to mix social and environmental factors in the study of social-ecological systems (SESs). Another 25% of the papers focus solely on social science, while only 2% of papers focus solely on environmental sciences. Having said this, **there is not one common core SES methodology employed overall.** And there is diversity in how SES perspectives are embraced in an institutional sense when integrating research,

outreach, or education. For example, some SES approaches are part of well-defined networks of "participatory observatories," while most others are one-off idiosyncratic efforts unique to each geographic setting. Analysis of SESs appears to be "driving the bus" for work in the developing world, while the smaller body of work in developed nations may be more disciplinary and traditional.

And while computer modelling has been a common approach in the study of pastoral systems in past IRCs, in this case **the use of modelling is rare at only 7% of papers.** When modelling is used, it is often bio-economic in nature to assess policy effectiveness for pastoral development.

Problem-solving with respect to improving grazing land management or mitigating poverty in pastoral areas is now avidly pursued via creation of stakeholder networks and reliance on input from local resource users. This is a major departure from the past among the IRC rank-and-file when independent, scholarly and remote observations of key actors was the currency of social-science assessment. This illustrates that participatory perspectives first introduced worldwide over 30 years ago have only recently taken root in the IRC. Such time lags in adoption of new scientific approaches are common.

Policy challenges that impede improvements in grazing land management, common-property oversight, or socioeconomic welfare among pastoralists are the focus of 61% of all papers. Policy is thus a major theme here, and it is speculated that attention to policy frameworks is another upward trend among investigators associated with the IRCs. Having said this, it is notable that hard economic analysis illustrating varied outcomes of policy choices remains rare in this assemblage of papers. Thus, there is little concrete "policy analysis" per se. Rather, authors often note that policy makers have little appreciation for the attributes of sustainable pastoralism, and hence are slow to protect key resources or facilitate mobility in pastoral areas, etc. Policy decisions are made, rather, in support of competing interests that reflect other societal priorities. While the fact that policy makers typically do not understand or value pastoralism is a vital observation, similar points have been made by pastoralism experts for many years. This suggests that little progress has been made in terms of advancing policy advocacy on behalf of pastoralists.

A series of papers have also been submitted with respect to supporting the proposed International Year of Rangelands and Pastoralists (IYRP) for 2026. An IYRP proposal has been submitted by the Government of Mongolia that is now under final review at the United Nations General Assembly. The objective of the IYRP papers presented at this IRC emphasize action priorities to raise global awareness and fill knowledge gaps around the world concerning rangelands and pastoralism.

## **Implications**

This brief review raises some interesting questions concerning a possible way forward for researchers and change agents who tackle problems of pastoral resource management and sustainable livelihoods. Some key questions may include:

- The rangelands of the more economically developed nations or regions such as the USA, Canada, Australia, and Europe are vital for global integration going forward to tackle major cross-cutting issues such as climate-change mitigation and pursuit of equity and social justice, but the IRC appears to not elicit many contributions from the developed world. Why is this so, and how could this pattern be remedied?
- The widespread embrace of social-ecological systems (SES) perspectives—along with the adoption of community-based participation techniques—is welcomed. It is now the norm, not the exception. However, are idiosyncratic approaches for incorporating SES topics OK, or should we try to better standardize methods? Would standardization help us better communicate with each other? Why or why not? And why does our interpretation of SESs seem to often avoid rigorous incorporation of economic analysis? Is this a problem, or not?
- It appears that studies in the developing world are more innovative with regards to incorporating SES perspectives than are studies in the developed world that tend to be more traditional. Surely SES matters in both settings, but what explains this dichotomy? Is this because there are more serious problems to solve in developing nations? Does SES help overcome problems that limit voices of the poor in developing nations?

- It is often said that we need to better educate policy makers about pastoral issues. Why have we apparently failed at this for so long? Are there new, action-oriented ways of working that could allow us to be more successful in this regard?
- The valuation of diverse ecosystem services is probably central to devising plans for global rangelands to have important roles in policy engagement, mitigating climate change, and tackling rural poverty this century. While ecosystem services are often mentioned as backdrops for our IRC studies, it is rarely a core centerpiece of projects. Is incorporation of ecosystem service valuation the next big step for global pastoral research and development? Why or why not?
- The next steps to be undertaken for the IYRP on the road to 2026 assume that the proposal is approved by the UN. If it is approved, based on our initial experiences here at the IRC, what should the IYRP aspire to achieve at the upcoming Society for Range Management (SRM) meeting in February? Specifically, what might be the best way to organize and deliver on the next set of IYRP symposia?

The End