

## **IRC2025 THEMES AND TOPICS**

### **THEME 1 VALUING RANGELANDS AND PASTORAL SYSTEMS FOR THEIR SOCIETAL CONTRIBUTION**

Theme 1 offers a rich tapestry of perspectives on the multifaceted contributions of global rangelands and pastoral systems to society. It delves into the opportunities and challenges that these landscapes face in the ever-evolving social, economic, political, and environmental context. By examining the intricate interplay between these factors, and with a keen focus on social dimensions, Theme 1 aims to provide valuable insights into how global rangelands can thrive as valuable contributors to our society amidst the complexities of a changing world.

#### Topics:

- International Year of Rangelands & Pastoralists – recognising rangelands
- Gender, youth and other intersectional perspectives for sustainable and resilient rangelands
- Indigenous perspectives for sustainable and resilient rangelands
- Land use and demographic changes in rangelands
- Land tenure, land rights & governance: emerging trends, competing interests and opportunities
- Understanding social licence for rangeland activities
- Power, equity and social justice in rangelands
- Social, health and other support services in the rangelands

### **THEME 2 CO-DESIGN, PARTNERSHIPS, AND INCORPORATING TRADITIONAL KNOWLEDGE FOR MORE ENDURING RANGELAND OUTCOMES**

Theme 2 explores the various ways in which diverse stakeholders come together to shape the future of rangelands. Indigenous land managers and traditional pastoralists are a key focus for this theme, alongside other landholders, local communities, government agencies, researchers and social enterprises. Case studies that involve co-design, co-management, participatory action research and transdisciplinary approaches are of particular interest.

#### Topics:

- International Year of Rangelands & Pastoralists – partnership building
- Strengthening the science-policy interface
- Integration of Indigenous and Traditional Knowledge and Western science
- Extension, communication and capacity building
- Indigenous intellectual property

### **THEME 3 TECHNOLOGY, INFORMATION SYSTEMS, COMMUNICATION, AND BIG DATA TO AID MONITORING AND DECISION MAKING**

Theme 3 explores the role of technology, artificial intelligence, and big data in enhancing monitoring, collaboration, and decision-making in policy and practice for rangelands. Through stories from diverse corners of the globe, Theme 3 seeks to deepen our understanding of how the digital revolution can be harnessed and translated into practice to create more sustainable and resilient rangelands.

Topics:

- Data collection and data platforms
- Remote sensing and land monitoring
- Decision support tools for pastoralists, extensionists, and other institutions - from design to adoption and positive impact
- The role of technology in facilitating collaborative rangelands research
- Working towards an internationally harmonized set of definitions and SDG indicators
- Technological innovation and access: novel opportunities for rangeland communities

### **THEME 4 INTEGRATING RANGELAND ECOLOGY INTO MANAGEMENT**

Theme 4 focuses on the ecology of rangelands and how this influences the ways that humans utilise, conserve and otherwise manage these important ecosystems. The conservation of biodiversity is not simply an end in itself, but also interacts with rangeland functions, including fire regimes, water management, grazing systems and soil ecology. Processes of degradation and restoration are driven by rangeland ecology and its interaction with human management and policy settings.

Topics:

- Rangeland degradation and restoration
- Wildlife, biodiversity, invasive species and pest management
- Water management in rangelands
- Fire ecology and plant management
- Preserving and enhancing soil health
- Improving rangeland ecological health

## **THEME 5 MANAGING RISK – CLIMATE AND OTHER SYSTEM SHOCKS AND TRENDS**

Theme 5 explores the critical aspect of risk management in rangelands, considering the challenges posed by climate change, geo-political instability, disease threats, and other system shocks and trends. With a focus on resilience, adaptation and transformation, Theme 5 aims to deepen our understanding of potential impacts, and highlight innovative strategies and best practices for safeguarding rangelands in the face of future uncertainties.

Topics:

- Climate change impacts and opportunities for strengthened adaptive capacity in rangelands
- Supporting rangelands under geo-political instability and extremism
- Risk management and resilience in the face of shocks
- Drought management for sustainable livestock production
- Mobility, reciprocity and opportunism

## **THEME 6 LIVESTOCK PRODUCTION SYSTEMS IN A WORLD OF CHANGING DRIVERS**

Theme 6 recognises the critical role of livestock-raising in how we conceptualise rangelands and the various ways in which we manage them. This includes nomadic herding, ranching, the integration of crops and forestry within grazing systems, livestock intensification and emerging practices such as regenerative farming. Livestock management practices, technologies, policy settings, economics and community expectations all continue to evolve in response to challenges such as climate change, population growth, animal welfare and limits to carrying capacity.

Topics:

- Livestock systems – production, health and welfare
- Carbon neutrality in the livestock sector - the role of rangelands
- Livestock intensification: opportunities and trade-offs
- Integrated crop, livestock and forestry systems for social, economic and environmental sustainability
- Grazing management for long term sustainability

## **THEME 7 MULTI-FUNCTIONAL LAND USE IN RANGELANDS – MOVING BEYOND NICHE OPPORTUNITIES**

Theme 7 explores the diverse outputs and ecosystem services we obtain from rangelands, including food and fibre, mineral resources, biodiversity, carbon sequestration, the protection of soil and water and fulfilling our cultural and spiritual needs. Diversification into alternative land use options may enhance some of these outputs while reducing other goods and services that we traditionally associate with rangelands. A recognition of multifunctionality presents opportunities to deliver some of these outputs jointly, while also presenting risks around flow-on effects and unintended consequences.

Topics:

- Showcasing alternative land use and diversification of income streams
- Rangelands in a global carbon economy
- Biodiversity and environmental services, markets, offsets
- Market-based approaches for control of non-native and unwanted herbivores
- Agricultural intensification of rangelands - "de-ranging" for other food production
- Economic capital flows in regional rangelands: the in and outs