



## Mountain Governance

MRI Working Group Fact Sheet  
(Updated 25 June 2020)

Governance of mountainous regions faces pressing challenges that carry implications for the future sustainability of human society. Mountain peoples and environments appear especially vulnerable to negative impacts from global change processes, yet provide invaluable benefits: They generate key ecosystem services, offer instructive examples of sociocultural resilience, and retain high biocultural diversity. Given the critical need for better understanding and information regarding mountain governance challenges and opportunities, the Mountain Governance Working Group brings together an interdisciplinary and international team of mountain experts with two objectives: Identify common problems, risks, and challenges that undermine or impede effective governance for sustainability of mountain social-ecological systems; and to analyse contexts and principles that appear to be associated with governance successes for fostering sustainability of mountain systems, and explore how promising cases are addressing their governance challenges.

### Key Working Group Details

**This Working Group was created in 2017 and is in its second phase (2020-2021).**

#### **Members (as of 25.6.2020):**

- Catherine M. Tucker (Lead), University of Florida, USA, [Email](#) | [Visit Webpage](#)
- Irasema Alcántara-Ayala, National Autonomous University of Mexico (UNAM), Mexico
- Alexey Gunya, Russian Academy of Sciences, Russia
- Elizabeth Jimenez Zamora, CIDES- Universidad Mayor de San Andres, Bolivia
- Julia A. Klein, Colorado State University, USA
- Xu Jun, Sichuan University, China
  
- Sophie Bigler, Research Assistant, MRI Coordination Office, Bern, Switzerland (former member)
- Esther Mwangi, CIFOR, Kenya (former member)

#### **Outputs and achievements to date:**

- Mountain Governance Survey conducted in 2019
- Online Bibliography on Mountain Governance and Related Aspects – [View and download the Bibliography here.](#)

## Planned Activities and Outputs for 2020-2021:

- Based on responses to the Mountain Governance Survey conducted in 2019, the working group will publish a peer-reviewed article that assesses local experiences of mountain social-ecological systems governance and implications for achieving sustainability. This research article will be submitted to *Mountain Research and Development* in 2020.

## Latest News

### **MOUNTAIN GOVERNANCE WORKING GROUP REPRESENTED MRI AT THE INTERNATIONAL MOUNTAIN CONFERENCE 2019 (30 September 2019)**

Members of the working group Represented MRI at the International Mountain Conference 2019, Innsbruck, Austria, delivering presentations, posters and participating in a range of sessions.

[Read more here.](#)

### **MOUNTAIN GOVERNANCE GAINS ATTENTION AT INTERNATIONAL CONFERENCES (23 September 2019)**

The MRI Mountain Governance Working Group (MGWG) explores challenges and opportunities for improving effective and sustainable governance of mountain social-ecological systems. In recent months, MGWG members participated in two international conferences: The International Association for the Study of the Commons (IASC) in Lima, Peru, and the International Mountain Conference in Innsbruck, Austria.

[Read more here.](#)

## Project Background

Governance is increasingly recognized as a critical dimension for accomplishing transformations toward sustainability and bettering people's lives, yet governance shortcomings can perpetuate problems or exacerbate unsustainable processes. Mountain social-ecological systems (MtnSES) have always presented challenges for governance due to their great biophysical and cultural diversity, valuable ecosystem services and natural resources, vulnerability to hazards, and relative remoteness. Today these challenges are exacerbated by processes of globalization, climate change, environmental degradation, and socio-economic and political transformations. Many of these problematic processes are linked to actions by external entities with inadequate comprehension of mountain realities. A recent study identified paradoxes that characterize mountains globally, each of which carries implications for governance (Klein et al. 2019). The challenges confronting MtnSES jointly pose "wicked problems" for achieving governance toward sustainability. At the same time, many mountain peoples have a history of effective local governance and sustainable management of their natural resources. For example, ancient and modern Andean peoples have created sophisticated systems for managing water (e.g., Erickson 1992, Trawick 2001) and Himalayan peoples developed agropastoral systems that mediated environmental risk (Mishra et al. 2003). In the present, mountain peoples and researchers are increasingly working together to increase understanding of MtnSES, examine traditional and scientific knowledge, and find solutions to complex problems. Yet we have much to learn about what works to improve the governance of mountain systems toward sustainability in current contexts of rapid change and uncertainty.

The group's work emphasizes six critical areas for mountain governance:

1. Political and economic pressures
2. Climate change and social-environmental transformations
3. Natural resources, ecosystem services, and biocultural diversity
4. Hazards and disaster risk reduction
5. Human rights, gender, and equity
6. Sustainability

## Working Group Activities

**Initial Steps:** The group formed through their involvement with the MRI Science Leadership Council, and developed a research plan and survey protocol during 2018.

**Survey Protocol and Data Collection:** The team finalized the survey protocol in November 2018. With the assistance of group members and support from MRI Coordination Office, the protocol was translated from the original English into French, Mandarin (Chinese), Russian, and Spanish. The MRI Coordination Office and collaborators distributed the survey online between February-May 2019.

**Data Compilation and Translation:** Using Excel and SPSS, survey responses have been compiled in a database, cleaned, and checked with the support of Sophie Bigler, MRI Coordination Office Research Assistant. Multilingual group members translated non-English responses into English.

**Compilation of Online Bibliography References:** Team members have contributed key references to initiate the [Living Online Bibliography of Mountain Governance and Related Resources](#), which will continue to grow and encompass relevant references in any available language. It is not necessary for included references to be available in English.

Contributions to the online bibliography are welcome. To recommend contributions for the online bibliography, please send complete citations and URLs, including attached pdfs where possible, to [Catherine Tucker](#).

**Data Analysis and Paper Write-up:** Preliminary analysis and drafting of a paper began in June 2019. Team members plan to present the findings at professional conferences and in a paper for publication in a peer-reviewed, online journal.

### Conference Participation:

1. *Biennial Meeting of the International Association for the Study of the Commons (IASC), Lima, Peru, 1-5 July 2019.*

Representatives of the team presented their research and discussed data analysis during the IASC conference. Two members of the team (Elizabeth Jimenez and Catherine

Tucker) presented papers as part of a session on 'Governing Mountain Commons: Challenges and Opportunities for Sustainability in Contexts of Change,' organized by Tucker. Another team member, Esther Mwangi, organized the session 'Linking Governance of Forest and Water: Lessons for policy and practice from the 'water towers' of East Africa.' Following the conference, available team members met to further the discussion of data analysis and write-up.

## 2. *International Mountain Conference, Innsbruck, Austria, 8-13 September 2019.*

Presentation of preliminary results:

- i. 'The Complex Anatomy of Disaster Risk Governance in Mountains: On the need of adjustments and Transformation.' Keynote presented by Irasema Alcántara-Ayala (UNAM).
- ii. 'Mountain Ecosystems-Analogues: Possibilities and Limitations of Knowledge Transfer and Experience in the Field of Mountain Governance,' presented by Alexey Gunya (Russian Academy of Sciences).
- iii. 'Opportunities and Challenges for Sustainable Governance and Local Development of Mountain Social-Ecological Systems,' presented by Catherine Tucker (University of Florida).
- iv. 'Opportunities for Successful Transdisciplinary Approaches to Sustainability Across the World's Mountains,' presented by Julia Klein (Colorado State University).

## How to join

As community-led activities, these Working Groups are open to anyone from the [MRI members](#) to participate and contribute to the Working Group's work plan. **Early career researchers (typically up to 5 years since attaining a postgraduate degree), women, and researchers and practitioners from developing countries and less represented mountain regions are particularly encouraged to join and participate.** Please contact the Working Group lead to seek information to join:

- Catherine M. Tucker (Lead), University of Florida, USA, [Email](#) | [Visit Webpage](#)

## Citations

Erickson, C. L. 'Prehistoric Landscape Management in the Andean Highlands: Raised Field Agriculture and its Environmental Impact.' *Population and Environment*, 1992, 13(4): 285-300.

Klein, J.A., Tucker, C.M., Nolin, A., Hopping, K.A., Reid, R.S., Steger, C., Grêt-Regamey, A., Lavorel, S., Weibel, B., Brunner, SH, Müller, B., Yeh, ET., Boone, RB, Bougeron, P., Bustic, V., Castellanos, E., Chen, X., Dong, SK, Greenwood, G., Keiler, M., Marchant, R., Roman Seidl, R., Spies, T., Thorn, J., Yager, K. and the Mountain Sentinels Network. 'Catalyzing Transformations to Sustainability in Mountain Social-Ecological Systems.' *Earth's Future*, 2019, 7(5): 547-557. <https://doi.org/10.1029/2018EF001024>.

Mishra, C.; Prins, H.H.T., and Van Wieren, S.E. 'Diversity, Risk Mediation, and Change in a Trans-Himalayan Agropastoral System.' *Human Ecology*, 2003, 31:595-609.

Trawick, P. 'The Moral Economy of Water: Equity and Antiquity in the Andean Commons.' *American Anthropologist*, 2001, 103:361-379.