

**Two steps forward, one step back:
Enabling collective action to rehabilitate rangeland commons in Bhutan**

IASC conference 2019, 2-5 July, Lima Peru

Theme: Institutions and actions for the protection of the commons in the 21st Century

Authors:

Dr Joanne Millar, Senior Research Fellow, Charles Sturt University, Australia. jmillar@csu.edu.au

Dr Karma Tenzing, Post-Doctoral Research Fellow, Charles Sturt University, Australia
ktenzing@csu.edu.au

Abstract

This paper explores the institutions and actions that are enabling and challenging collective action to rehabilitate rangeland commons in Bhutan. Semi-nomadic yak herder communities are experiencing severe landslides and fodder shortage due to overgrazing and climate change (Tenzing et al. 2017). Herding families are caught in a vicious poverty cycle caused by decline in rangeland resources, labour, and poor access to services (UNDP 2013). To compensate, herders retain more livestock, resulting in greater pressure on pastures and tree lopping for fodder which is labour intensive and dangerous. A crisis point was reached in 2015 with rapidly widening landslides in winter grazing areas that are occupied for eight months of the year. A partnership was formed to take collective action involving 120 households from Merak village, Bhutan Department of Forest and Park Services, the Department of Livestock, World Wildlife Fund, Charles Sturt University and the UK Darwin Initiative Fund.

A program based on the community landcare approach in Australia was developed using gender sensitive capacity building, on-ground works, action research and social learning. With a history of conflicts in Merak and unresolved issues over land tenure, it was important to build a collective commitment to fixing the rangeland degradation problem. Herders learnt about group dynamics, conflict resolution and group management with a facilitator who had a history of working with the community and was not working in government. Local forest and livestock officers then worked with herders to plan, fence and plant a 20ha eroded gully and sow pasture for winter fodder. The physicality of camping and working together formed a common bond in challenging conditions. Herders have gained confidence in dealing with what seemed an unsurmountable problem. They have formed two women's savings groups to invest in income generating enterprises.

However not all households have engaged with the program due to lack of agreement on improving large communal areas with many leases. Until the government reallocation of rangeland leases is finalised, some herders are reluctant to make decisions lest more conflicts arise. Further challenges have been frustrations over the slowness of government agencies to transfer funds, procure materials and organise activities. Collective action efforts often struggle to operate in the highly regulated government environment in Bhutan where rangeland commons are owned by the state (Tenzing et al. 2018). Non-state actors such as WWF and the Red Panda Network have provided advice and funding to enable forest rangers to play a more educational role. Collective steps will need to continue to build resilience of rangeland commons and communities.

Keywords: Bhutan, rangeland commons, collective action, herders, land restoration

Introduction

This paper explores the institutions and actions that are enabling and challenging collective action to rehabilitate rangeland commons in Bhutan. Rangeland commons in Bhutan are state owned with grazing rights leased to semi-nomadic herders as private and/or common leases (Tenzing et al. 2017a). These areas include grasslands, alpine meadows and forests from 2,000 to over 5,000m in altitude. Livestock including cattle, yaks, sheep and goats graze freely within unfenced leased areas. Herders seasonally move with their livestock from winter to summer pastures and back over several months and live in huts whilst tending the herds. Lease boundaries are usually well known by families from landmarks such as ridges, valleys, trees or boulders (Tenzing et al. 2018).

Collective action in natural resource management (NRM) involves rules around using or not using a resource, as well as processes for monitoring, sanctioning and dispute resolution (Ostrom 2007). For communal areas used by several families, traditional customary rules generally exist around agreed entry and exit timing. Community stewards are appointed on a rotational basis to monitor encroachment by cattle from downstream communities or herds from other leases. Graduated penalty systems exist to deter and punish defaulters (Tenzing et al. 2018). However, in eastern Bhutan, collective action norms are being challenged by increasing population and livestock pressure on a limited rangeland resource and subsequent land degradation.

Poteete and Ostrom (2004) stated that collective action may fail whenever there is increased competition over resources and distributional consequences resulting in failure to cooperate despite common goals. Indeed, Anderson (2004) notes that increased competition for scarce natural resources and potential rents accruable from these resources often result in conflicts. This is exactly what has been occurring within semi-nomadic yak herder communities in Merak district in eastern Bhutan. The herders are experiencing severe landslides and fodder shortage due to overgrazing and heavy rain events (Tenzing et al. 2017a). Herding families are caught in a vicious poverty cycle caused by decline in rangeland resources, labour, and poor access to services (UNDP 2013). To compensate, herders retain more livestock, resulting in greater pressure on pastures and tree lopping for fodder which is labour intensive and dangerous. Herders report high mortality rates in calves and cows, and diseases which weaken yaks and cattle (Tenzing and Millar, 2017). Livestock encroachment has caused major conflict as herders become more desperate to find fodder. Conflicts have occurred between herders within the Merak community and with downstream farmers, with some cases going to court and several people jailed (Tenzing et al. 2017b).

A crisis point was reached in 2015 with rapidly widening landslides in winter grazing areas, and ongoing conflicts. Something needed to be done to create a new form of collective action based on agreed ownership of the problem, capacity building in social and technical skills to deal with the problem and institutional structures to maintain sustainability of collective action. In a perverse way, the crisis and conflicts created an opportunity for social and environmental change towards a more sustainable future. As Sanginga et al. (2007) found, in the context of agro-forestry in the highlands of south-western Uganda, conflicts actually incentivized adoption of sustainable NRM technologies which had a positive impact on social change. They concluded that collective action, by-laws implementation and linking to local government structures enhanced the community's ability to transform conflicts into opportunities.

A partnership was formed to take collective action involving 120 households from Merak village, the Bhutan Department of Forest and Park Services, the Department of Livestock, World Wildlife Fund, Charles Sturt University and the UK Darwin Initiative Fund. In the following section, we describe the project site, the collective action approach taken, and how we evaluated the process and outcomes. Findings and reflections on the social, environmental and institutional conditions that enabled and challenged collective action are presented. We conclude with a discussion of these findings in relation to international literature on collective action in rangeland contexts.

Methods

Project Site

The project was located in Merak district of eastern Bhutan (Figure 1). Merak village with 235 households is located in the Sakteng Wildlife Sanctuary (SWS). SWS was formed in 2003 covering 740.60 sq.km of broadleaf, fir, mixed conifer, alpine shrubs and meadows (Figure 2). The sanctuary has rich biodiversity with 43 rhododendron species (highest in Bhutan), and many globally endangered wildlife species including the Red Panda, Musk Deer, Bengal Tiger and Takin (Wangdi et al. 2019). Semi-nomadic herders called 'Brokpas' (meaning people of the high grasslands) and originally from Tibet, have lived here for centuries. They established two settlements at 3,000m (Merak and Sakteng) but spend most of the year migrating with their yaks and cattle to winter pastures around 2,800m and summer pastures at 4500m (Wangdi and Norbu 2018). They produce butter and cheese for consumption and sale. The project focused on three winter grazing areas used by 120 households which had become severely degraded. The areas are called Chebling (90 households- communal), Sheytemi (25 households- private) and Drana (5 households- private).

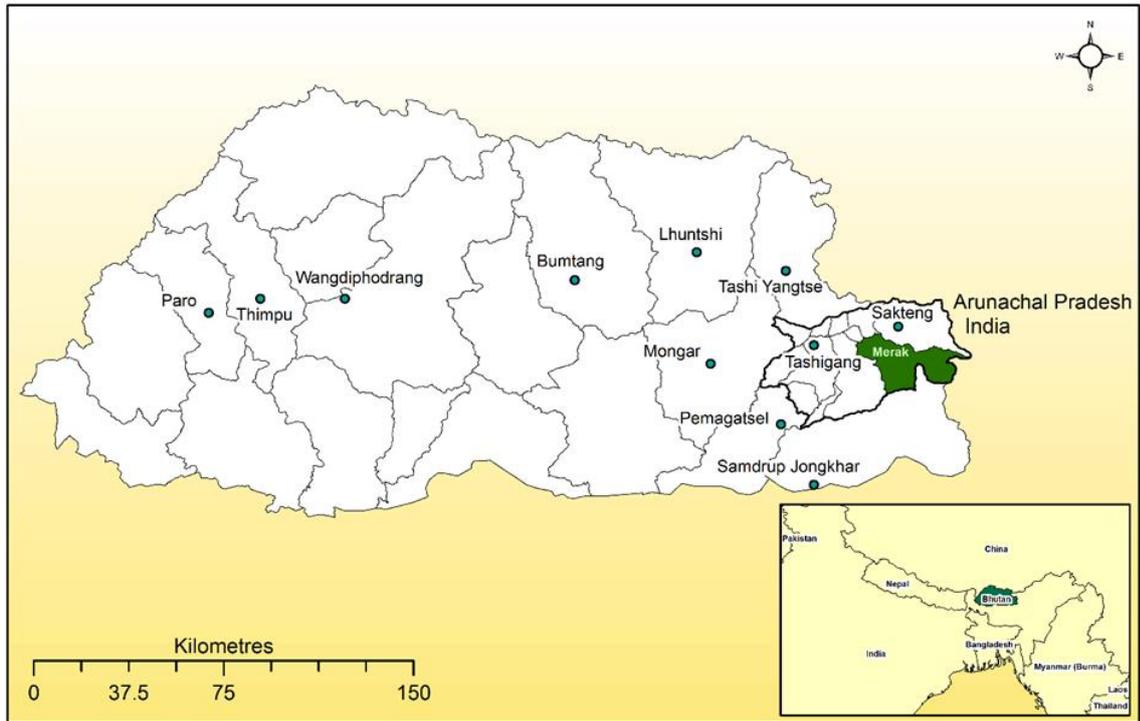


Figure 1 Location of Merak district

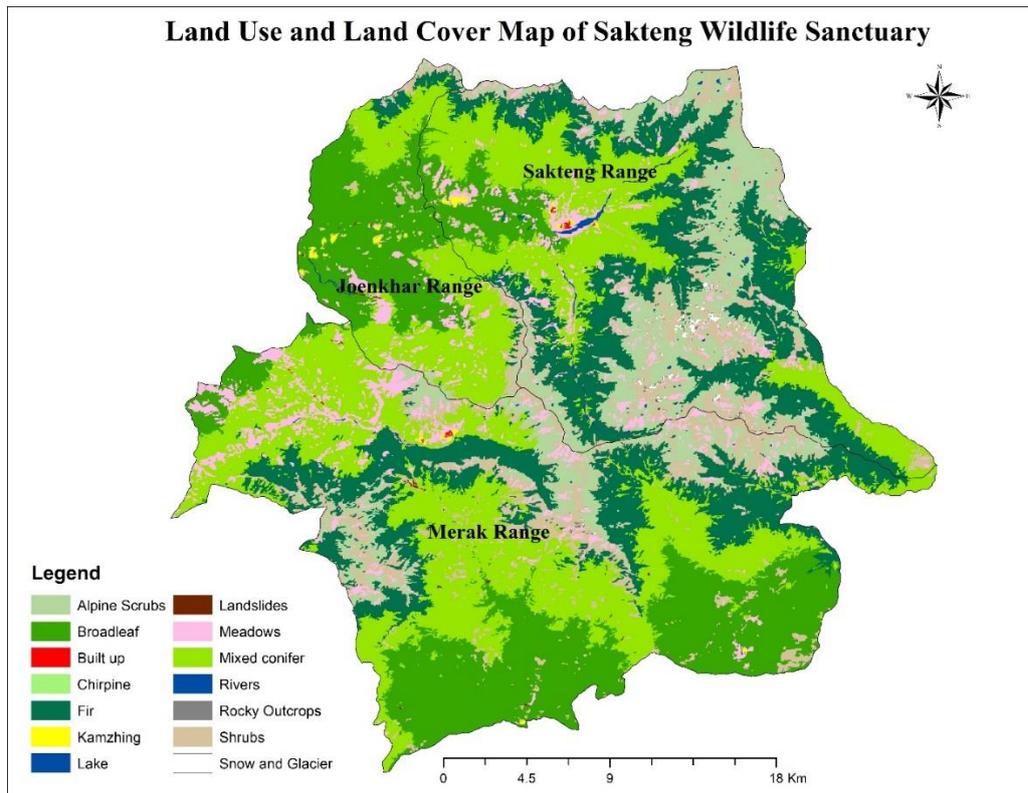


Figure 2 Forest types and meadows in Sakteng Wildlife Sanctuary

(Source: SWS 2019)

Collective action approach

A program based on the community landcare approach in Australia (Henry et al. 2016) was developed using gender sensitive capacity building, on-ground works, action research and social learning. Merak herders were approached before the grant application to discuss what they wanted to do about rangeland degradation and lack of livelihood opportunities. They were keen to get funding to revegetate the large eroded gullies and trial pasture improvement for winter fodder. The first step was to conduct training in group dynamics, conflict resolution and group management to improve the capacity of people to work together on rangeland management and conservation. The training was facilitated by someone well known to the community who had gained their trust in managing a previous UNDP project which delivered significant benefits.

Local forest and livestock officers then worked with herders to plan, fence and plant a 20ha eroded gully and sow pasture for winter fodder. This involved regular meetings and on-ground works over three years. Herders were paid for their labour in building fences and check-dams, and planting trees. Payment honoured their work and created ownership of and commitment to the project. A study tour to Sikkim enabled herders to learn about pasture improvement and community based conservation. Hands on training in pasture establishment and silage production followed. Two savings groups were formed, enabling households to invest in existing or new enterprises. School students were involved in learning about red pandas and threats caused by overgrazing, tree lopping and domestic dogs. Community meetings and awareness sessions were held on a regular basis (every 3-4 months) on different topics related to rangeland management.

Evaluation methods

Evaluation of the impacts of collective action was administered by conducting baseline and final household surveys in 2016 and 2019 respectively. Meeting and trip notes, field observations and indepth interviews were also used to form an assessment of the process and outcomes of collective action.

Results and Discussion

Enablers of collective action to support rangeland commons

When state and/or non-state actors become involved in facilitating collective action for natural resource management, it is important they have a sound understanding of the past and present context. This includes thorough knowledge of the environmental situation including ALL the causal factors of degradation or resource overuse. An acute awareness of the social context is also needed including community hierarchy, power relations, kinships, wellbeing, services (or lack of) and conflicts. We were fortunate to have government staff who had

worked with the Brokpa community for many years. The CSU research officer was also highly regarded as he had delivered substantial benefits to the community via a previous project, and spent time with them during his PhD journey. They understood how to communicate at the different levels of Merak society and how to establish trust. Project staff regularly listened to community concerns and resolved conflicts over fencing materials and labour payments to keep things running smoothly. This gave the project a strong foundation for collective action as people trusted and respected them.

We therefore identified trust and credibility as a powerful enabler of collective action in high altitude rangelands, as Sharp et al. (2012) found for contexts where there is high complexity and uncertainty. Bollig and Schwieger (2014) and Ostrom (2010) also stated that perceptions of trust and fairness can motivate cooperation for collective action. Trust does not necessarily have to be already established before engagement, as it can be built over time between individuals and eventually lead to a community perceptions of agency trustworthiness from collaborative efforts (Sharp et al. 2013).

Capacity building in group dynamics, conflict resolution and organisational management at the start of the project proved effective in sustaining collective action. The group training involved all 120 households and evoked powerful messages about how to genuinely collaborate via interactive learning activities. Of course, there were still disagreements and conflicts at times but the herders felt more confident about resolving them. When asked at the end of the 3 years, whether the Merak group was functioning better, worse or no change, 88% of respondents thought the group had improved (Figure 3). One male herder said “*People are listening to each other; they share ideas and come up with good solution to the problem.*”

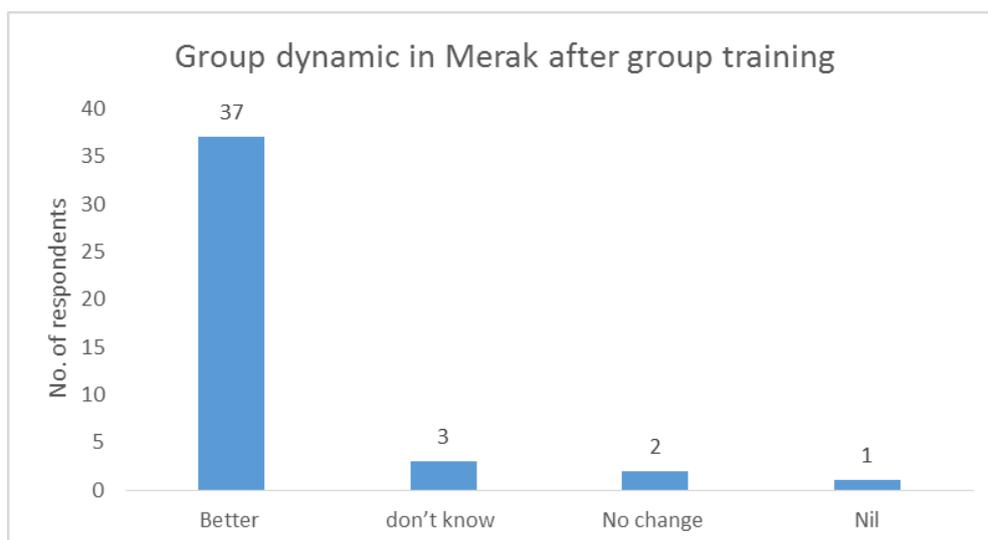


Figure 3 Perception of change in Merak group ability to work together (N = 43)

Setting up two savings groups followed the group management training to enable households to build wealth and move out of the poverty cycle by investing in existing and/or alternative enterprises. A committee was formed with office bearers for each group, a group constitution laid out the rules, and an iron safe and ledger book purchased. Members paid a 500Nu (\$7US) membership fee and invest a minimum of 150Nu (\$2US) per month using their passbooks. Within 18 months, membership had grown to a total of 150. Ten members had borrowed funds varying from 5,000 to 30,000Nu (\$71 to \$430US) for enterprises such as setting up a small shop, making more wooden bowls for sale, carpentry business, cheese making and trading.

The collective action involved in forming savings groups gave households confidence that they could get ahead financially if they pooled their resources. A female herder stated *“We can save for our children; we don’t need to worry about losing it”* After 2 years of operation, the final household survey revealed that the majority of members were highly satisfied or medium satisfied (Figure 4). An unexpected outcome (to us) was the increased group interest to apply for grants to expand their activities. One group were successful in getting an NGO grant to build a wool processing centre. The other group got funding from UNDP to improve water management in the village. Capacity building can increase advocacy skills and enable communities to better engage with authorities (Ireland and Thomalla 2011). At the final project meeting, the mayor of the village proudly announced how much additional funding they had procured as a result of gaining necessary skills and confidence in this project.

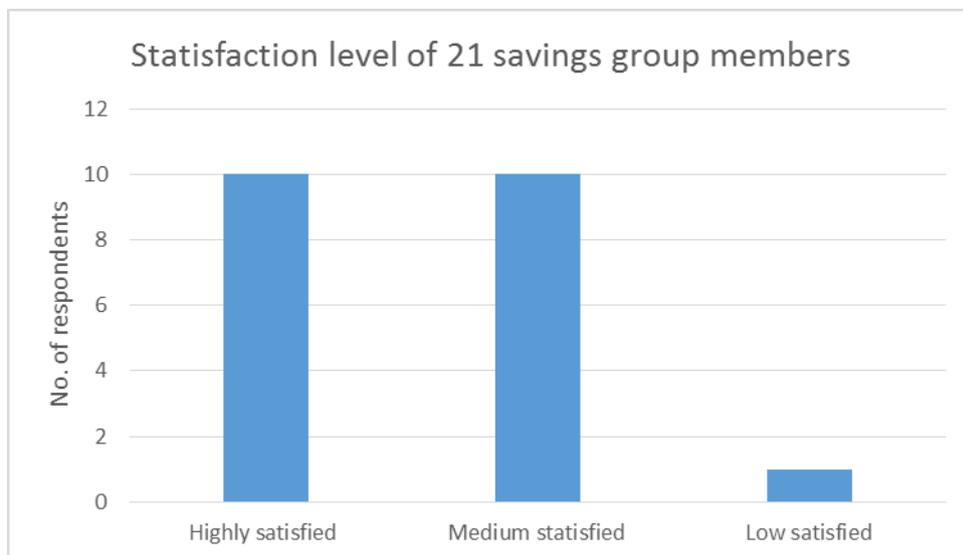


Figure 4 Satisfaction with savings groups (N = 21)

Capacity building in social, economic and technical skills is widely recognised by the literature on collective action in rangeland management as both an enabler and an outcome of collective action (Christmann, et al. 2015; Sanginga et al. 2007; York and Schoon 2011). A combination of ‘on the job’ learning and regular structured learning events, keep skills up to date and keeps people bonded in the process of sharing their learning for collective action (Millar and Curtis 1997; Photakoun et al. 2010). Capacity building also builds collective action resilience to internal and external threats such as climate change, disasters, politics and economic downturns (Christmann, et al. 2015; Ireland and Thomalla 2011).

An important enabler of collection action identified in this project was the role of culture and beliefs in reinforcing commitment to collective action. In keeping with the Buddhist culture, a senior lama was invited to bless the Drana Gully by laying a ceremonial offering in the ground at the head of the gully. A service or ‘puja’ was held to please spiritual deities and ensure protection of the area. Such ceremonies instill sacredness and respect to the environment. Ireland and Thomsall (2011) found religious organisations could facilitate collective action by communicating with and galvanising parishioners to action post disaster in southern Thailand. However they also found religious affiliations hindered collective action in Nepal, when people would not communicate or work with someone with a different religion.



Another unexpected enabler (and outcome) of collective action expressed by government staff was the opportunity for livestock and forestry staff to work together outside the ‘norm’ where they see often see each other as ‘foes’ (eg livestock damages conservation, forestry doesn’t understand agriculture). On a walk around the fenced pasture area which had red panda habitat, the regional livestock director suddenly realised that fencing had benefits for wildlife and livestock, as bamboo was able to regenerate and livestock could strategically graze new pasture. Forestry and livestock staff could see ‘win-win’ outcomes. Non-state actors such as WWF and the Red Panda Network provided advice and funding to enable forest rangers to play a more educational role. They were also instrumental in facilitating a Red Panda Conservation workshop to develop an Action Plan for national and transboundary

conservation. Integrating different government disciplines and joining forces with NGO partners, helps collective action as communities see everyone working towards the same goal (Ostrom, 2010; York and Schoon, 2011). Known as polycentric governance (Carlisle and Gruby 2017), the system is generally perceived to be more adaptive in dealing with complex natural resource management issues.

Challenges to collective action in rangeland commons

There are always challenges to collective action- some can be overcome, some not. Challenges can slow down progress or in some cases temporarily or permanently stop progress. One of the key challenges we had to deal with was the tendency of some Brokpas to cause conflict because of jealousies, historical family/foe issues or not following agreed rules. The only way to deal with these conflicts was to sit down and talk them through. If that didn't work, then more often than not, the objector would opt out of the activity. Dealing with conflicts did slow progress at times, as often the village mayor had to be consulted and meetings organised to try and resolve the issue.

Another challenge that prevented or slowed down collective actions was the size of communal areas and uncertainty over user rights. Those herders who had private user rights were willing to improve pasture on their grazing areas but households with shared communal areas were unable to initially agree amongst themselves. Uncertainty over the government re-allocation of rangeland leases also caused reluctance to make decisions lest more conflicts arise. However, after a pasture field day where herders were able to see how well sown pastures had established, many of the communal households decided to adopt pasture improvement in the final year of the project. Although the government land allocation process is yet to be completed, herders have been reassured that the status quo will remain (Wangdi and Norbu 2018). Certainty over property rights and granting of management rights makes collective action for sustainable development more likely (Tenzing et al. 2017a).

Collective action efforts often struggle to operate effectively in highly regulated government environments (German et al. 2010; York, and Schoon, 2011). In Bhutan, where rangeland commons are owned by the state, approvals are required for resource use and management which can take time to process. We experienced challenges over the slowness of government agencies to transfer funds, procure materials and organise activities. According to Chuki (2017), traditional agrarian Bhutanese society relied on various self-help mechanisms (collective action) for meeting various societal challenges for generations. However, the onset of planned development in the 1960s may have eroded traditional self-help mechanisms as

rural populace began to increasingly depend on State initiated development programs (Chuki 2017).

Merak villagers spend many days hosting visiting government officials, monastic bodies, royalty and NGOs. These duties on top of family and business demands take time away from collective action towards sustainable rangeland management. The all too familiar 'dependency' scenario in development, can stifle community creativity and investment in their futures. Lack of collective memory regarding success or failure of previous development projects can cause the same mistakes to be repeated. Hence it is really important to find out about previous projects and the reasons for failure or success.

Conclusion

We conclude that collective action for sustainable rangeland management and livelihoods can be effective if adequate enablers are in place. Global initiatives such as the Darwin Fund provide a platform or catalyst to stimulate collective action for managing commons. Rangelands, by nature are located in remote areas which often lack state recognition of commons problems. Hence, there is a need to fully engage state, non-state actors and communities in a polycentric partnership arrangement with clear roles, responsibilities and property rights. Capacity building in problem solving, conflict resolution and planning skills will give actors confidence to work together. Trust in the collective process will grow as social and environmental benefits emerge. Challenges to collective action are inevitable and need to be slowly worked through to keep moving forward. For every two steps taken, there will often be one step back but collective steps will need to continue to build resilience of rangeland commons and communities.

Acknowledgements

The project described in this paper was funded by the UK Darwin Initiative Fund with additional financial support from Charles Sturt University and the World Wildlife Fund Bhutan. We would like to sincerely thank the Department of Livestock and Department of Forest and Park Services for their administration. We acknowledge the people from Merak and Gengu villages, staff from Sakteng Wildlife Sanctuary, Regional Livestock Development Centre at Kanglung and District Livestock staff from Trashigang for their active participation, hard work and commitment to the project.

References

Anderson, T. L. (2004). Donning coase-coloured glasses: A property rights view of natural resource economics. *Australian Journal of Agricultural and Resource Economics* 48

- Bollig, Michael, and Diego A Menestrey Schwieger. (2014). Fragmentation, cooperation and power: Institutional dynamics in natural resource governance in north-western Namibia." *Human Ecology* 42 (2):167-181.
- Carlisle, K. and Gruby, R.L. (2017). Polycentric Systems of Governance: A Theoretical Model for the Commons. *Policy Studies Journal*. <https://doi.org/10.1111/psj.12212>
- Christmann, S., Aw-Hassan, A., Rajabov, T., and Rabbimov, A. (2015) Collective Action for Common Rangelands Improvement: A Climate Change Adaptation Strategy in Uzbekistan, *Society & Natural Resources*, 28:3, 280-295, DOI: 10.1080/08941920.2014.933927
- Chuki, S. (2017). The pros and cons of the traditional self-help mechanisms: a story from Shari Gewog, Paro. *The Druk Journal* 3 (2).
- German , L. A., W. Mazengia, H. Taye, M. Tsegaye, S. Ayele, S. Charamila, and J. Wickama. (2010). Minimizing the livelihood trade-offs of natural resource management in the eastern African highlands: Policy implications of a project in "Creative Governance". *Human Ecology* 38:31-47.
- Henry, A., Koech, R. and Prior, J. (2016). The value of Landcare to the Australian community. Paper prepared for Landcare NSW, landcare.nsw.gov.au/wp-content/uploads/2017/.../161216-The-Value-of-Landcare.pdf
- Ireland, P. and Thomalla, F. (2011).The role of collective action in enhancing communities' adaptive capacity to environmental risk: an exploration of two case studies from Asia. *PLoS Curr.* 2011 Oct 24;3:RRN1279. doi: 10.1371/currents.RRN1279
- Millar, J. and Curtis, A. (1997). Moving farmer knowledge beyond the farm gate: An Australian study of farmer knowledge in group learning. *European Journal of Agricultural Education and Extension*. 4(2), pp. 133-142.
- Namgay, K., Millar, J. and Black, R. (2017). Dynamics of grazing rights and their impact on migrating cattle herders in Bhutan. *The Rangeland Journal*. 39 (1) 97-104 CSIRO Publishing, Australia. <http://dx.doi.org/10.1071/RJ16052>
- Ostrom, E. (2007). Collective action and local development processes *Sociologica*, 1 (3):1-32. doi: 10.2383/25950.
- Ostrom, E. (2010). Polycentric systems for coping with collective action and global environmental change. *Global Environmental Change* 20 (4):550-557. doi: 10.1016/j.gloenvcha.2010.07.004.
- Photakoun V. Millar, J. and Race, D. (2010). Evaluating capacity building methods to strengthen livestock extension outcomes in Laos. *Extension Farming Systems Journal* 5 (2) 91-100.
- Poteete, A. R., and E. Ostrom. (2004). In pursuit of comparable concepts and data about collective action. *Agricultural Systems* 82 (3):215-232. doi: <http://dx.doi.org/10.1016/j.agsy.2004.07.002>.
- Sanginga, P., Kamugisha, R. and Martin. A. (2007). Conflicts management, social capital and adoption of agroforestry technologies: empirical findings from the highlands of southwestern Uganda. *Agroforestry Systems* 69 (1):67-76. doi: 10.1007/s10457-006-9018-5.
- Sharp, E., Thwaites, R., Millar, J., Curtis, A (2012). Factors affecting community-agency trust before, during and after a wildfire: An Australian case study. *Journal of Environmental Management* 130, 10-19.

- Sharp, E. A, Thwaites, R. Curtis, A, and Millar, J. (2013): Trust and trustworthiness: conceptual distinctions and their implications for natural resources management, *Journal of Environmental Planning and Management*. 56, 8. 1246-1265
- Tenzing, K. and Millar, J. (2017). Baseline household survey report. Institute for Land, Water and Society, Charles Sturt University.
<https://www.csu.edu.au/research/ilws/research/summaries/2016/sustainable-rangeland-management>
- Tenzing, K., Millar, J., and Black, R. (2017a). Changes in Property Rights and Management of High-Elevation Rangelands in Bhutan: Implications for Sustainable Development of Herder Communities. *Mountain Research and Development*, 37(3), 353-366.
- Tenzing, K., Millar, J. and Black, R. (2017b) Conflict and mediation in high altitude rangeland property rights in Bhutan. International Association for Study of the Commons Conference 2017, Utrecht, the Netherlands. In the Digital Library of the Commons.
- Tenzing, K., Millar, J., and Black, R. (2018). Exploring governance structures of high altitude rangeland in Bhutan using Ostrom's Design Principles. *International Journal of the Commons*, 12 (1), 428-459.
- United Nations Development Program (UNDP) (2013) Country Programme Landscape Strategy Bhutan. Restoring and Managing Landscapes in Gamri Watershed.
- Wangdi S, and Norbu N (2018). Good fences are key to sustainable pasture management and harmonious pastoral society of Merak and Sakteng in Bhutan. *Pastoralism* 8(1): 4.
- Wangdi, T., Tobgay, S., Dorjee, K., Dorji, K., and Wangyel, S. (2019) The distribution, status and conservation of the Himalayan Musk Deer *Moschus chrysogaster* in Sakteng Wildlife Sanctuary. *Global Ecology and Conservation* 17 (2019) e00466.
- York, A. and Schoon, M. (2011). Collective action on the western range: coping with external and internal threats. *International Journal of the Commons*. Vol. 5, no 2 pp. 388–409