

RESEARCH ARTICLE

Constitutionality and the Co-Management of Protected Areas: Reflections from Cameroon and Myanmar

Jude Ndzifon Kimengsi¹, Pyi Soe Aung¹, Jürgen Pretzsch¹, Tobias Haller² and Eckhard Auch¹

¹ Technische Universität Dresden, DE

² University of Bern, CH

Corresponding author: Jude Ndzifon Kimengsi (jude_ndzifon.kimengsi@tu-dresden.de)

This article discusses the co-management experiences of two tropical protected areas – the Korup National Park (KNP) in Cameroon, and the Natma Taung National Park (NTNP) in Myanmar. The discussion is anchored on the constitutionality construct and opens up reflections to guide future management processes and outcomes for protected areas. Based on a review of articles and institutional reports, complemented by interviews and focus group discussions, we comparatively analyze the manifestations of two constitutionality principles in co-management around the KNP and NTNP, and discuss future co-management perspectives. The paper concludes with reflections on how local level institutions could be activated in protected area management, especially with respect to enforcing catalyzing agents and improving state motivation and recognition of local institutional processes. The results do not only provide necessary ingredients to improve the institution-building process if co-management must become adaptive, but equally opens up new research avenues in the context of local power play and social learning. We argue that further studies should seek to understand conditions, under which catalyzing agents and the state could support and recognize endogenous institution-building processes to improve resource management outcomes.

Keywords: co-management; constitutionality; protected areas; Cameroon; Myanmar

1. Introduction

Research on the social issues of conservation has been at the centre of scientific and policy discussions for a long time; it is argued that this aspect provides a promising path to understand power asymmetries, and identify conflict resolution and effective conservation engagements (Lund and Bluwstein 2018). Numerous participatory and decentralized approaches have been introduced in protected area management (Ribot 1999, 2002; Galvin and Haller 2008; Benson 2012; Lund *et al.* 2018), including the co-management approach. Having been applied for over two decades in several contexts, the co-management concept is viewed as a power and responsibility sharing process, which is geared towards improving protected area management efforts (Frame *et al.* 2004; Armitage *et al.* 2008; Schultz *et al.* 2011; Plummer *et al.* 2017a).

Protected areas in tropical countries could be described as “natural resource battle fields”; they are characterized by competition and conflicts, arising from diverse actors’ interests. This situation is blamed among others, on the breakdown of well-working local institutions (Rist *et al.* 2006; Geiser and Rist 2009; Haller 2010), and the prevalence of top-down protected area management projects (Mustalahti 2006; Acciaioli 2009) which have led to the unsustainable management of protected areas. Much hope was rekindled through the introduction of participatory management (including co-management) as an alternative to fortress conservation (Hulme and Murphree 2001; Brockington 2002), and as a novel resource management approach (Schultz *et al.* 2011; Ratner *et al.* 2017). Co-management, in its “ideal form”, presupposes a

negotiation process involving two or more social actors who define and guarantee amongst themselves a fair sharing of the management functions, rights and obligations in the management of natural resources (Borrini-Feyerabend *et al.* 2007). In some cases, it presupposes a legal obligation, with state actors grudgingly participating (Meek 2013).¹ Although co-management involves some form of agreement on power-sharing between multiple local and state actors, it can best be viewed as a state-community relationship (Carlsson and Berkes 2005; Ballet *et al.* 2009).

Evidence-based evaluations have, over the years, revealed a series of shortcomings associated with co-management. For instance, in cases where attention is paid to the structure of the co-management system, rather than to the function, it has failed to yield the desired outcome. By laying much emphasis on the formal aspect of power-sharing arrangements, stakeholders run the risk of overlooking its functionality components which should be understood as a continuous problem-solving process (Carlsson and Berkes 2005). Scholars equally contend that most co-management endeavors were not informed by an understanding of cross-scale effects, emergent outcomes and self-organization (Campbell *et al.* 2001; Connick and Innes 2003; Plummer and Armitage 2007a; Pretzsch *et al.* 2014). Most governments have been largely unwilling to effectively engage in meaningful co-management processes (Sekhar 2000; Yami *et al.* 2009). Furthermore, the ineffective participation of diverse actors (Meek 2013), especially community actors, further justifies the need for more process-oriented and endogenous-driven resource management arrangements. In recognition of the need to give due attention to the functional and learning (experimental and experiential) natural resource management perspectives, adaptive co-management emerged as a novel governance approach (Olsson *et al.* 2004; Bruns 2008; Gondo 2011; Plummer *et al.* 2012; Smedstad and Gosnell 2013). The latter is an on-going, experiential process of shared resource governance involving state, non-state and community actors, all seeking to strategically harmonize their conflicting interests and influence for improved resource management (Carlsson and Berkes 2005; Fischer *et al.* 2014). Scholars argue that the process is constructive and leads to the greater formalization and improvement of natural resource management outcomes (Plummer *et al.* 2012; Fischer *et al.* 2014; Plummer *et al.* 2017b). This construction suggests the need for continued efforts to identify meaningful bottom-up institution building processes. Constitutionality, as a new theoretical construct, represents one of such efforts to improve natural resource management institutions, especially from the community's standpoint. It represents one of the possible ways of advancing discussions on how to activate true and effective bottom-up co-management processes for protected areas (see Haller *et al.* 2016, 2018).

1.1. The 'birth' of constitutionality

The genealogy of constitutionality could be traced from failed top-down natural resource management approaches (Foucault 1991; Agrawal 2005a, 2005b; Fletcher 2017). As advanced by Haller *et al.* (2016), the theoretical construct on constitutionality suggests a novel institution-building process in which natural resource management initiatives are developed from below, with emphasis on participation as perceived by community members, local negotiation strategies and the development of the right sense of ownership in managing natural resources (Haller *et al.* 2016; Faye *et al.* 2017; Haller *et al.* 2018). Rooted in the New Institutionalism in social anthropology (Ensminger 1992; Haller 2010), the concept further examines strategic dimensions of how participation at grassroots level in the institution-building process have been accomplished, negotiated, legitimized (by reference to ideologies), and established, to involve compromises that consider power issues (Ensminger 1992; Haller 2010). It goes beyond Ostrom's design principles and builds on the institutional analysis and development (IAD) framework (Ostrom 1990, 2005), to understand the power-specific processes and contexts within which novel co-management institutions are developed (see Chabwela and Haller 2010; Pretzsch *et al.* 2014; Haller *et al.* 2016; Haller *et al.* 2018). While Ostrom's work highlights the way successful institutions work and the important elements for their success (Ostrom 1990, 2005), it does not address issues of power relation, which the works of Ensminger does. She emphasizes the role of actor's bargaining power and ideology in the institution-building process (Ensminger 1992, see Haller 2013 for a revised version). These studies opened up a research gap with respect to understanding how local actors themselves perceive (i.e. emically²) an institution-building process in retrospective.

¹ We thank the reviewers for sharing this and other perspectives and for leading us to the relevant literature, including Tania Li's "The will to Improve" as discussed subsequently.

² This relates to the views of local communities regarding their will to participate and to develop a sense of ownership in the institution building process (Haller *et al.* 2018).

Constitutionality builds on past efforts to analyze the institutional breakdown process that characterized well-working natural resource management institutions in the past (Rist *et al.* 2006; Geiser and Rist 2009; Haller 2010), and the uncovering of the top-down nature of many participatory projects in protected area management (Mustalahti 2006; Rist *et al.* 2007; Galvin and Haller 2008; Acciaioli 2009; Fondufe *et al.* 2016; Kimengsi and Moteka 2018). Although numerous participatory processes have been initiated in protected area management (Borrini-Feyerabend 1997; Agrawal and Ribot 1999; Brown and Schreckenberg 2001; Shackleton *et al.* 2002; Alemayehu *et al.* 2015), their top-down nature often resulted in weak outcomes (Ribot 1999, 2002; Larson and Ribot 2004; Haller 2007; Buchenrieder and Balgah 2013; Kimengsi 2014; Kimengsi and Balgah 2017). These outcomes are partly attributed to the “misconceptions about local power processes and the inability of those involved to use traditionally developed institutional settings or to transform them in a participatory way to create local ownership of the process and its outcomes” (Chabwela and Haller 2010 p.623). This has necessitated the reconstruction of more encompassing and accommodating institutions (Pretzsch 2005; Pretzsch 2014; Pretzsch *et al.* 2014; Haller *et al.* 2015; Faye 2016; Faye *et al.* 2017; Haller *et al.* 2018).

The term constitutionality in this case does not refer to legally established political constitutions for states and organizations; it rather connotes pro-active and strategic participation in the design of local institutions, negotiated in settings with heterogeneous stakeholders (Chabwela and Haller 2010; Haller 2010, 2013). By stressing on the internal perceptions of community members on the need to create new and stronger institutions, constitutionality largely avoids the external-motivation trap – the tendency for such external actors (state and NGOs) to influence this process for local communities. It is equally critical of the state’s “will to improve” (Li 2007), especially with regards to recognizing and supporting locally crafted institutions.

1.2. Empirical Cases and the Constitutionality Principles

Constitutionality is rooted in a number of studies in some parts of Africa (Zambia, Senegal and Mali), Latin America (Bolivia and Mexico), Asia (Indonesia), The Middle East (Israel), Europe (Switzerland) and the USA (Haller and Chabwela 2009; Haller and Galvin 2011; Haller *et al.* 2018). Here, the authors discuss the processes through which local resource users (fishers, forest users, farmers, ranchers) and managers experience competing resource interests and countervailing ideologies and discourses, and subsequently strive to collectively increase their bargaining strength and pursue their own interests (Haller *et al.* 2018). The constitutionality approach, which was developed empirically, sought to show how a sense of ownership in the institution building processes was working. In Africa for instance, the principles have been applied to regulate collective fishing in the Kafue Flats in Zambia (Haller and Merten 2018; Chabwela and Haller 2010). It has equally been applied in crafting local “constitutions” to regulate forest and fishery management for many villages bordering the Tarabe’ River (Mali). Based on these empirical studies, six key principles were developed to include: (I) internal or emic perception by the community on the need to create new institutions, (II) capacity for engaging participatory processes that address power asymmetries, (III) pre-existing institutions for collective action, (IV) outside catalyzing agents, (V) recognition of local knowledge and innovations, and (VI) higher-level state recognition and support (Haller *et al.* 2016). These cases proved effective initially but the failure to ratify them at the district level, implied an eventual erosion. From these cases, proponents of constitutionality argue that further research on the manifestations of the above principles are required to ground this theoretical construct. Furthermore, the conditions under which these principles could successfully contribute to craft effective natural resource management institutions is yet to be uncovered. This particularly concerns the two principles of; (IV) enforcing catalyzing agents, and (VI) improving state recognition (Haller *et al.* 2016).

Based on previous cases, these two principles stand out as such: (A) Catalyzing agents demonstrate significant potentials to support communities in the bottom-up institution building process, especially if given a free hand to do so. And also, if they work in collaboration with local catalyzing agents. (B) The failure by the state to recognize locally-crafted rules made them short-lived, despite the fact that they proved effective initially. The manifestations of these principles are crucial in bridging knowledge gaps with regards to the extent to which outside catalyzing agents, and the state could genuinely support bottom-up institution building processes for sustainable natural resource management. Therefore, this study seeks to address a theoretical gap on endogenous institution building by (i) comparing the manifestations of the two principles using case studies from Africa (Cameroon) and Asia (Myanmar), and (ii) analyzing the conditions under which both principles could be (un)successful in crafting resource management institutions that are effective.

While both countries (Cameroon and Myanmar) have diverse local institutions, requiring effective endogenous rule crafting processes, they were also carefully selected because of the following attributes:

Firstly, state dominance in the regulation of natural resources have failed to successfully improve co-management in both contexts. Secondly, the study sites in both countries are characterized by a stream of local and outside catalyzing agents whose role in co-management could be improved upon. These countries therefore provide good examples where knowledge and experience sharing can improve the co-management activities in the protected areas of both countries who all have significant numbers (over 30 protected areas). The effectiveness of the other four principles – internal or emic perception by the community on the need to create new institutions (I), capacity for engaging participatory processes that address power asymmetries (II), pre-existing institutions for collective action (III), and recognition of local knowledge and innovations (V), is largely defined by the influence of outside catalysing agents and the recognition by the state. This makes the two principles crucial in Cameroon and Myanmar with diverse political systems, that affect natural resource management arrangements. Put succinctly, in the context of diverse political systems – quasi-democratic (Cameroon) and authoritarian (Myanmar) regimes, the conditions under which outside catalyzing agents and higher-level state recognition can be achieved in co-management arrangements, still remains relatively underexplored.

By outside catalyzing agents, we refer to conservation and development non-governmental organizations (NGOs) who, despite their incomplete neutrality in the institution-building process, support the creation of a relatively open platform for local debates, thereby reducing transaction costs for organizations and catalyzing communicative action that can enhance social learning in co-management (Haller *et al.* 2016). In this study, they include the Wildlife Conservation Society (WCS), the World Wide Fund for Nature (WWF) and the German Technical Agency (GIZ), for Cameroon. In Myanmar, they include Sustainable Development Knowledge Network (Spectrum), and the WCS. Higher level state recognition denotes situations in which the state does not only acknowledge bottom-up participatory processes, but also accommodates institutions and rules that emanate from such processes to enhance resource management (Chabwela and Haller 2010).

To further ground this theoretical construct, this article seeks to address the following objectives: firstly, to identify and document the manifestations of two constitutionality principles in Korup and Natma Taung; secondly, to discuss the potentials of these principles to (re)orient co-management in both cases. Knowledge on the manifestations of these principles in the context of both national parks, contribute to the proposition of lines of further reflections on future co-management decisions and actions, with a focus on addressing top-down and bottom-up power issues in natural resource management. Specifically, this paper compares two cases (Cameroon and Myanmar) which share similar local resource management arrangements, but differ in their political systems. This allows for theoretical insights on endogenous institution building, with respect to understanding conditions, under which outside catalyzing agents and state recognition of local rules can influence co-management processes. However, the study does not claim to fully resolve this knowledge and practice gap, but opines that other studies are needed to further build this theoretical construct.

The article is structured into five sections. After the introduction, which gives a conceptual background of co-management and constitutionality, section two presents the methodology which begins with the case descriptions of the paper. The second part of section two discusses the methods employed in the article to include prior experiences gained by the authors during participatory natural resource management arrangements, interviews, focus group discussions, and the review and analysis of relevant articles and reports. Section three presents the results on the manifestations of constitutionality principles in the Korup and the Natma Taung. Section four discusses both cases using the two principles of constitutionality, including their links to broader theoretical contexts. Section five concludes by proposing future lines of thought on how future co-management arrangements can be adapted, as the contribution of the paper.

2. Methodology

2.1. Case Descriptions

Cameroon – the 8th most forested country in the world, forms part of the Congo Basin with over 20 million people. The country has over 30 protected areas (Lambi *et al.* 2012). The framework governing protected area management in Cameroon was previously characterized by the adoption of legislations that failed to effectively capture the co-management option. This approach changed after the Rio 1992 Earth Summit, which emphasized the need for a holistic approach in environmental resource use and management. Despite attempts to introduce decentralization reforms to increase community participation, the state still dictates the pace and orientation of resource governance in Cameroon (Oyono *et al.* 2004; Kimengsi 2014). Moves to establish co-management gained momentum in the late 1990s, despite the lack of technical, institutional and financial capacity of the state and communities to engage in the process.

Consequently, bridging conservation organizations stepped in to provide technical and financial support in the co-management of some protected areas in Cameroon, including the Korup.

The Korup is located in the South West Region of Cameroon (**Figure 1**). With a surface area of 1,259 Km², it is classified as an IUCN category II protected area. The creation of the park in 1986 led to the geographical engulfment of six villages (Bera, Esukutan, Erat, Ikenge, Bareka, Batanga and Ikondo kondo I) which were hitherto outside the park. There was thus a change in the status of these villages from legal to illegal occupants of the park, with the state showing signs of relocating the villagers (Mbile *et al.* 2005; Schmidt-Soltau and Brockington 2007). Perhaps, the failure by the State to effectively recognize the legitimate claims of these 6 villages, and to concretize their resettlement (Devitt, 1988; Nijborg 2000; Diaw and Tiani 2010) sowed the seeds of mistrust amongst most communities in the area, towards state agents in the co-management process.

Myanmar's conservation history dates back to the 11th Century, when protected areas were established traditionally through wildlife sanctuaries around Buddhist monasteries (Aung 2007). These areas were later transformed into formal protected areas in 1918 when the British established game sanctuaries to protect endangered wildlife species. Protected area management in Myanmar is guided by the 1994 Protection of Wildlife and Protected Areas Law. This legal instrument facilitated the creation of 39 protected areas covering a total area of 38,906 km² (Forest Department 2015). Most of the protected areas do not have formally designated buffer zones (Istituto Oikos & Banca 2011; Tint *et al.* 2011). For several decades, Myanmar's protected areas were managed strictly to fulfil a series of conservation objectives with the virtual neglect of local needs and interests (Aung 2007). Due to this failure, its devolution to site management levels was recommended (Rao *et al.* 2013). The recently formulated National Biodiversity Strategy and Action Plan serves as a useful framework to guide co-management activities (Forest Department 2015) around protected areas, including the Natma Taung.

The Natma Taung is one of the largest protected areas in Myanmar, covering about 713.46 km² (Aung *et al.* 2015). Geographically, the park is located in the southern Chin State of Myanmar (**Figure 2**). The groundworks to establish this park were initiated in 1983 (Sayer, 1983). However, political instability slowed the park establishment process for ten years (Ngai, 1993). The park administrative office was only created

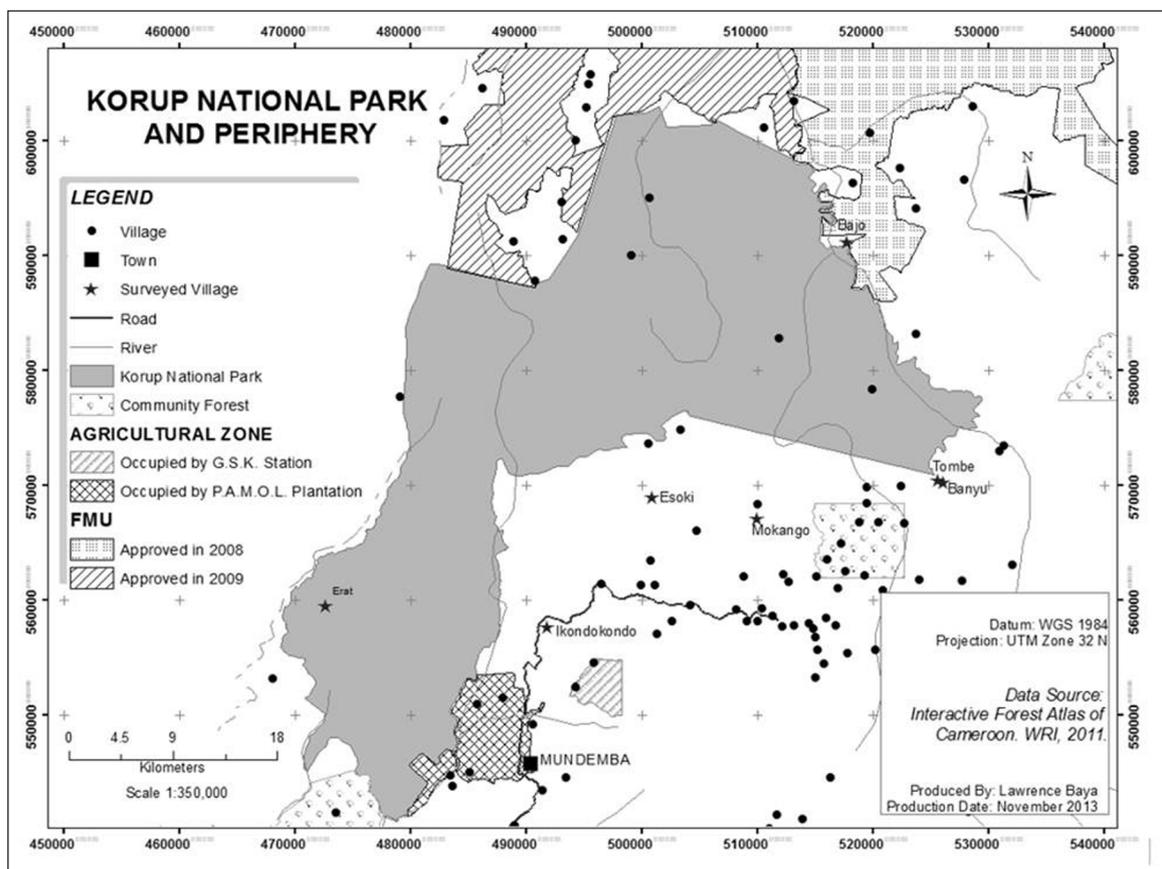


Figure 1: Korup National Park and its peripheral villages (WWF Cameroon 2013).

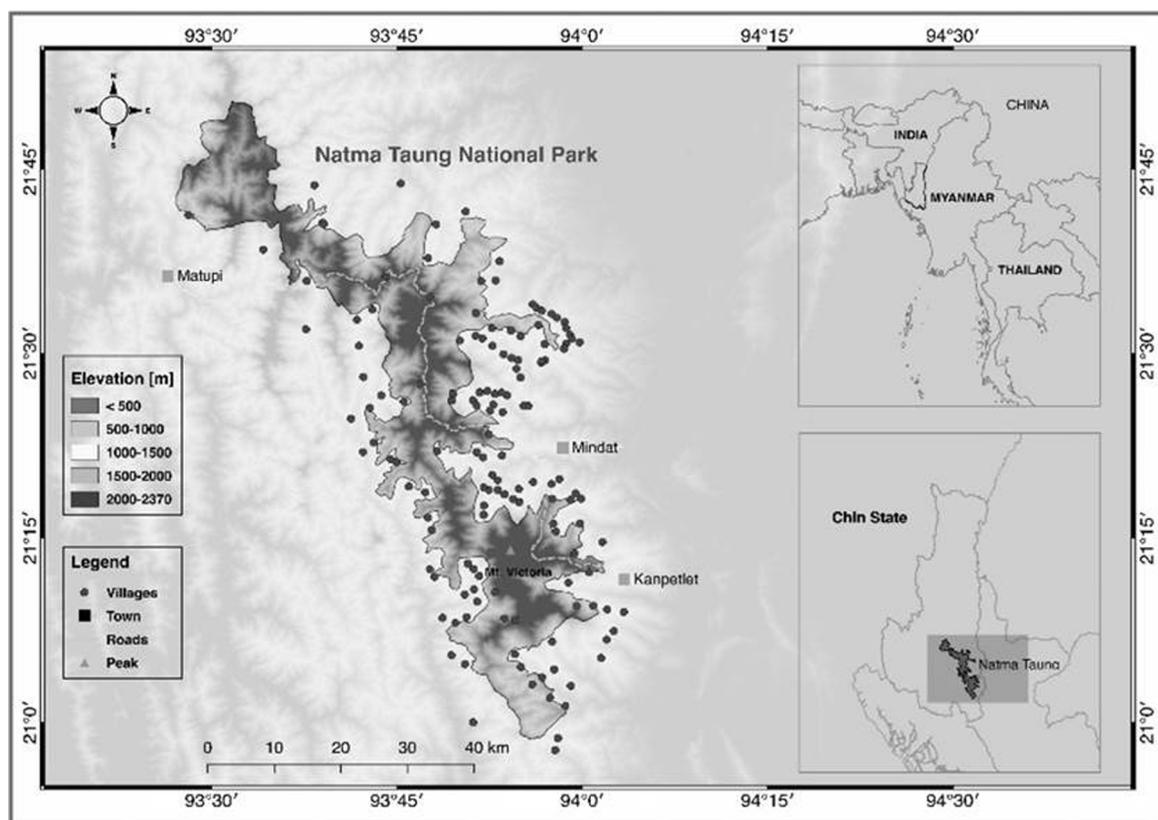


Figure 2: Natma Taung National Park and its peripheral villages (Park Office, 2016).

in 1994, with an official notification in 1997. After the notification, a land settlement committee was formed, to investigate the rights and privileges of customary landowners in the villages around the park. This process took another decade, due to complex land tenure issues. Instead of monetary compensation, the land allocation program was launched in 2008 and the park was officially gazetted in December 2010. The land allocation program distributed a total of 42.95 km² of land to 40 villages located inside and around the national park (Forest Department, 2017). The villagers have the right to use the allocated lands under certain conditions: First, only the household member whose name is written in the land settlement report has access to these allocated lands. Second, land recipients are not allowed to extend, transfer, or sell the land to other persons. Third, the recipients are permitted to use the land only for subsistence purposes including firewood, poles and bamboo exploitation. The sale of forest products is forbidden (Aung *et al.* 2015; Meyers, 2014). Recently, a pilot project – the Participatory Monitoring and Management (PMM) project was implemented in two villages, located at the border of the national park with the technical support of Spectrum. The project sought to identify a series of lessons to be considered during the elaboration of the long-term co-management framework in Myanmar.

2.2. Methods

This paper is inspired by the participation of the authors in previous participatory natural resource management arrangements in tropical countries: In Cameroon, Kimengsi served as a conservation consultant for WWF, GIZ and the Programme for the Sustainable Management of Natural Resources (PSMNR)³ between 2013 and 2017, where he participated in a series of co-management activities. As Forest Officer in Myanmar, Pyi Soe participated in the development of the co-management strategy for the Natma Taung and other protected areas in the country. Between 2013 and 2017, Pretzsch and Auch implemented Sustainable Field Laboratories and Participative Innovative Platforms (PIPs) in the natural resource management contexts of East and North Africa (Asmamaw and Auch 2016; Pretzsch and Auch, forthcoming). Haller's extensive research covering parts of Central, West and Southern Africa, which led to the identification of the constitutionality principles, was used to enrich the discussion in this paper.

³ This is a development programme co-financed by Cameroon government through the Ministry of Forestry and the Federal Republic of Germany. This body is charged with the facilitation of the co-management process for the Korup National Park.

The latter's perspectives further buttressed the framing of the key questions and the discussion of the theoretical contributions of the paper.

To analyze the manifestations of the two constitutionality principles, we drew on qualitative data from various sources including, interviews, focus-group discussions, the elicitation of oral history and biographies, complemented by literature and archival research. Pretzsch, Haller, Auch and Kimengsi consulted relevant literature on participatory forest management in Africa, including Cameroon. The latter (Kimengsi) consulted the co-management planning and implementation reports for PSMNR Phase I (2006–2011) and PSMNR Phase II (2012–2017) for the Korup, to identify key elements bargained and agreed upon, including the parties involved in the process. This enabled the further identification of local power asymmetries which formed the basis for the development of an interview guide. Field data collection (interviews) in Cameroon was conducted by Kimengsi. Here, he carefully selected respondents, based on their knowledge and leadership role in mobilizing community members. Furthermore he (Kimengsi) participated in one of the Cluster platform meetings of the Korup National Park⁴ (September 2015), where he interviewed eight traditional authorities – drawn from Cluster Platform D villages – considered to be the most strategic Cluster in the Korup. Focus during the interviews was on their perceptions with respect to improving community voice, their relationship with catalyzing and state agents, and their perception of a fairer negotiation in co-management. The next phase of data collection ran from August to October 2017, involving interviews with eight particularly knowledgeable elders from the target cluster villages (Fabe, Ekondo Kondo, Esoki, Massaka, Mokangem, Mokango, Mopako and Ngenye). The final round of interviews for Cameroon was conducted between December 2017 and January 2018, involving three state officials (one Park Conservator, one Divisional Delegate of Forestry, and one Park field staff), two WWF staff (Programme Manager and Livelihoods Thematic Leader), two PSMNR Staff (Monitoring officer and Field staff), and one GIZ (Protected Area Technical Advisor). All interviews with the traditional authorities and local representatives were self-conducted in Pidgin English, while the interviews with state and bridging agencies were conducted using the English Language.

For Myanmar, apart from reviewing relevant literature on participatory forest management in Asia, including Myanmar, Pyi Soe conducted focus group discussions (FGDs) between May and July 2016, within the framework of his PhD research as follows: one FGD at the national park office and two FGDs in each project site – with particular focus on the motivation of community members to participate in the co-management of Natma Taung, members' experiences, the key outcomes and challenges encountered during its implementation. He (Pyi Soe) also interviewed nine key informants to clarify the outcome of focus group discussions, and to determine individual perceptions on project outcome and possible pathways in the future. This interview involved three government officers (the Director of Nature and Wildlife Conservation Division, the park manager, and one field ranger), two villagers from each pilot village (village headman and project secretary), one local WCS staff (Site coordinator), and one Spectrum staff (Project Coordinator). The interviews were guided by the two constitutionality principles of interest in this paper.

In both cases, the authors used field notes to record the interviews. The interviews with these key stakeholders provided data on the historical roots of traditional institutions and local actors' emic perceptions of the institution-building process, the role of catalyzing agents so far and what could be done to further improve the bargaining strength of local communities and to gain state recognition. Emphasis was placed on the two principles of focus in this paper. The data obtained were transcribed and coded. Based on the coded data, and guided by the two principles of interest, we summarized this information in the narratives presented in the results (Section 3) and discussion (Section 4) that shows the co-management actors and their relationships, and the manifestations of the two constitutionality principles respectively. In this paper, our analysis (narratives, content and thematic analysis) discusses Principles IV (enforcing catalyzing agents) and VI (improving state recognition) in both study cases. A more profound discussion on the influencing mechanisms of catalyzing agents and state recognition was carried out.

3. Results

3.1. Case Study I: Co-management process in the Korup

Under Cameroon's Ministry of Forestry and Wildlife (MINFOF), co-management initiatives for the Korup started in 2006 through the introduction of the Programme for the Sustainable Management of Natural Resources (PSMNR), co-financed by the Federal Republic of Germany. MINFOF was charged with the

⁴ Cluster conservation zones usually hold meetings (cluster platform meetings) to assess progress made in co-management. It was during one of such meetings that some of the data were collected.

implementation of the operational activities of PSMNR, in collaboration with the GIZ, WWF and the WCS, who all served as outside catalyzing agents (PSMNR Report 2012). A characteristic feature of this institutional setting is the fact that local institutions (customary rules) are not explicitly recognized; this downplays the influence of adjacent communities during co-management negotiations.

The co-management process (**Figure 3**) in the Korup involved state actors, outside catalyzing agents (WCS, WWF and GIZ) and village representatives. The state and outside catalyzing agents identified and grouped villages (based on proximity and geographical boundaries) into six Cluster Conservation Zones to implement Collaborative Management Activities. The implementation of the latter led to three levels of incentives; direct cash benefits for individual labour, conservation bonuses and conservation credits.⁵ Agro-Socio-Economic Assessments of target villages were conducted to prioritize village development measures and to document baselines of socio-economic variables. In addition, Village Forest Management Committees were re-organized to form Cluster Platforms to plan, implement and monitor collaborative management activities. Cluster Facilitators were equally contracted to serve as liaison agents between communities and park authorities, with respect to the exchange of vital conservation information. To concretize the commitment between communities and park authorities, Conservation Development Agreements were established to define the roles and responsibilities of the park service and communities, in the implementation of Village Development Measures.

After more than a decade of co-management implementation, weak outcomes were registered with respect to the creation of state tele-guided local institutions (cluster platforms and village forest management committees), and community sensitization (not necessarily improving their negotiation capacity). These outcomes fell short of effectively considering local power processes, and allowing for the development of emic perceptions on the need for institutional transformation and local ownership creation. The outcomes

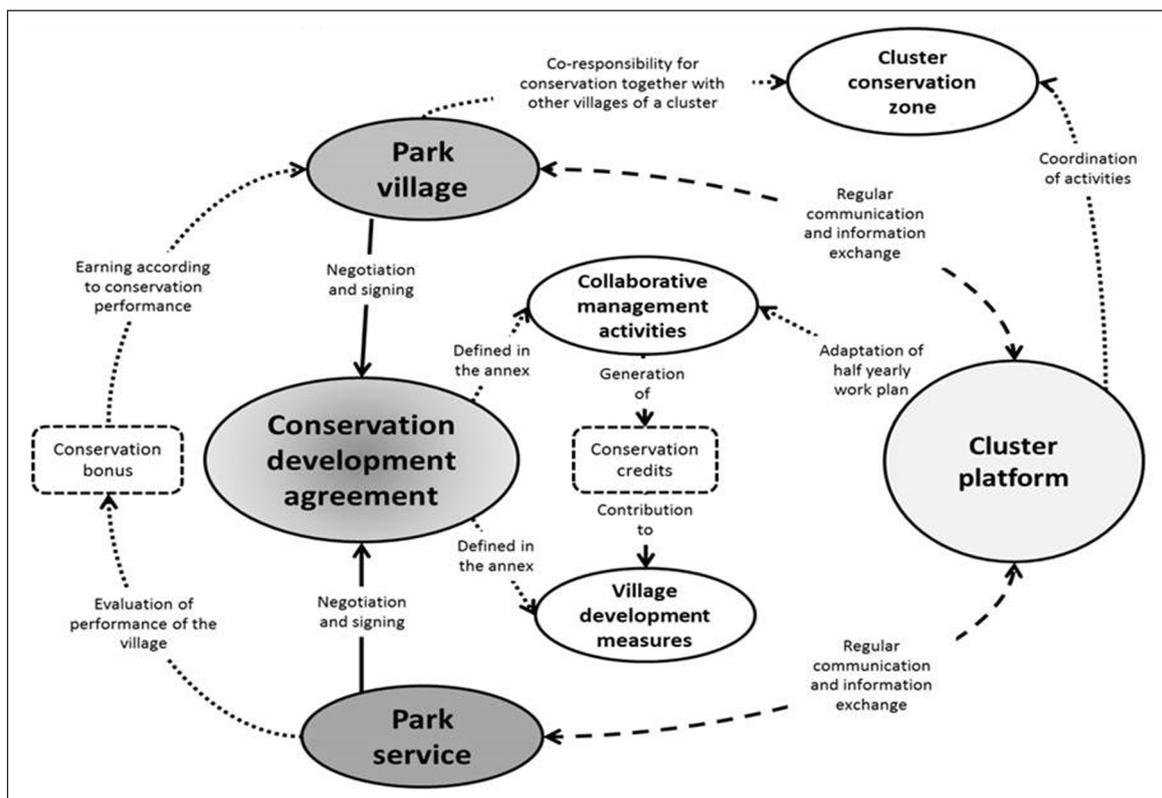


Figure 3: Co-management schema for the KNP (Adapted from PSMNR 2012).

⁵ The cash benefits go directly to the individual involved in the activity while conservation bonus of 200,000 FCFA (ca 300 EUR) is earned yearly at village level based on the level of involvement in collaborative management activities such as the protection of class A wildlife, and the avoidance of commercial poaching or logging. This amount reduces as the illegal activities increases but is completely compromised if a Class A animal is killed or protected area staff are confronted by aggressive villagers on business missions. Conservation credit is calculated as 20% of the sum paid out as direct cash benefits to the community and used to offset the community contribution to the implementation of VDMs.

are further mirrored through weak wildlife harvest reporting networks, low participation in boundary demarcation, and joint patrols with eco-guards, including implementing the non-timber forest products harvesting and commercialization strategy (PSMNR 2012; Interview with Key Informants, December 2017).

3.1.1. Components of constitutionality in the Korup

The constitutionality principles have been developed based on empirical studies aimed at reconstructing more encompassing and accommodating resource management institutions in some parts of Africa, Latin America and Asia, the Middle East, Europe and North America (Haller and Merten 2018; Chabwela and Haller 2010; Haller *et al.* 2016; Haller *et al.* 8). Considering Principle IV, co-management facilitation by outside catalyzing agents are largely influenced by the State (**Table 1**). The efforts of catalyzing agents are, in most cases, not coordinated. In addition, local catalyzing agents (local NGOs) exist in these landscapes but have very limited influence in bottom-up institution building processes, despite their extensive knowledge of the dynamics of the Korup landscape. It can thus be deduced that the potential role of catalyzing agents in engendering meaningful bottom – up processes remain fragmented. Furthermore, the technical and financial support provided by these agents are periodic in nature – suggesting that most endeavors fizzle out once the support from catalyzing agents come to an end. The disconnect between state intentions and local level aspirations, suggests a timid level of state recognition (Principle VI). Cameroon's legal framework, as enshrined in the 1994 Forestry Law, makes provision for different forms of participatory management of protected areas, including co-management; this implicitly recognizes the need for locally crafted institutions. However, this recognition is linked to external pressure and the

Table 1: Synthesis of constitutionality components in the KNP and the NTNP.

Principle (P)	Manifestations in the KNP of Cameroon	Manifestations in the NTNP of Myanmar
P1: Internal or emic perception for the need to create new institutions	Community desire to preserve cultural/spiritual values, erratic benefits arising from ambiguous co-management arrangements, perceived pressure from large agro-plantations (e.g Herakles farms) in the near future, need to have a strong bargaining force.	Desire to reduce park authority-indigenous community conflicts, increased threats from outsiders for timber, wildlife, and NTFP collection, increased land grabbing from powerful actors.
P2: Capacity for engaging participatory processes that address power asymmetries	Creation of VFMCs and CPs (with diverse representation) to steer co-management process, vibrant women and youth groups that can be coached.	Creation of TPAMCs and VCGs (with some representation from villages, state, international NGOs) to steer co-management process. Local guardians
P3: Pre-existing institutions for collective action	Traditional institutions (traditional council, secret societies), VFMCs and CBOs with crafted rules which could be given greater orientation towards co-management	Traditional territorial rules are still recognized and respected by local actors. Existence of customary institutions such as traditional council, religious groups, VCGs and CBOs with crafted rules which could be used as preconditions for co-management initiatives.
P4: Outside catalyzing agents	Catalyzing agents such as WWF, WCS, GIZ exist with uncoordinated interventions.	The main catalyzing agent is SPECTRUM.
P5: Recognition of local knowledge and innovations	Indigenous knowledge/skills in boundary and fire tracing, domestication of NTFPs, negotiation and conflict resolution.	Indigenous knowledge for sustainable forest use linked to customs and traditions, local conflict resolution mechanism based on negotiation and spiritual belief.
P6: Higher-level state recognition and support	Forestry law captures co-management, some representation of diverse stakeholders during consultation, management plans are validated at local level	NBSAP provides strategic directions to establish co-management and recognize local indigenous knowledge. Newly enacted National Land Use Policy recognizes customary tenures and related institutions.

Source: Derived from Key Informant interviews and Focus groups discussions, 2012, 2016 & 2017).

need to fulfil international obligations. In the Korup, externally-driven and largely technocratic ideologies prevail. While the state showed some interest in supporting the local institution building process (by creating village forest management committees), these institutions lack a true bottom-up foundation. It can therefore be deduced that the state is both willing (and unwilling at the same time) to create room for meaningful co-management.

Most of the preconditions to guarantee self-motivation to craft local constitutions are absent (Mbile *et al.* 2005), including the lack of a clear strategy to rollout co-management operations. The co-management approach implicitly converted many target villages into dependent groups at the mercy of limited yearly financial support for village development (Fon 2013). The constituent members of the cluster platform (the decision making body) emanate from Village forest management committees – a structure which lacks community originality and orientation. While the failure to institute meaningful co-management negotiations for more than a decade in the Korup is explained by numerous factors, two very important and interrelated ones are of interest in this paper. They include firstly, the incomplete neutrality of catalyzing agents whose ideas focus on short term conservation project goals (with defined timeframes). By concentrating to meet project conservation goals, catalyzing agents fails to dig deeper into the broader picture of endogenously-driven institutional change which can improve community voice (and actions) in co-management. This systemic and process-oriented approach linked to constitutionality can contribute to adapt future co-management settings. Secondly, the state, in a bid to tamper with meaningful bottom-up initiatives, does not only influence the creation of local institutions, but significantly (re)orients the activities of catalyzing agents.

3.2. Case study II: Co-management process in the Natma Taung

Although the co-management process is fairly recent in the Natma Taung (Figure 4), understanding the dynamics in the context of constitutionality is relevant to avoid the weak outcomes observed in numerous cases. The process was initiated through public consultations in 31 park villages to discuss priorities, concerns, and solutions for conservation and livelihoods. Although considered as public consultations, most of these meetings assume a one-way communication in favour of the State. Two Township Protected

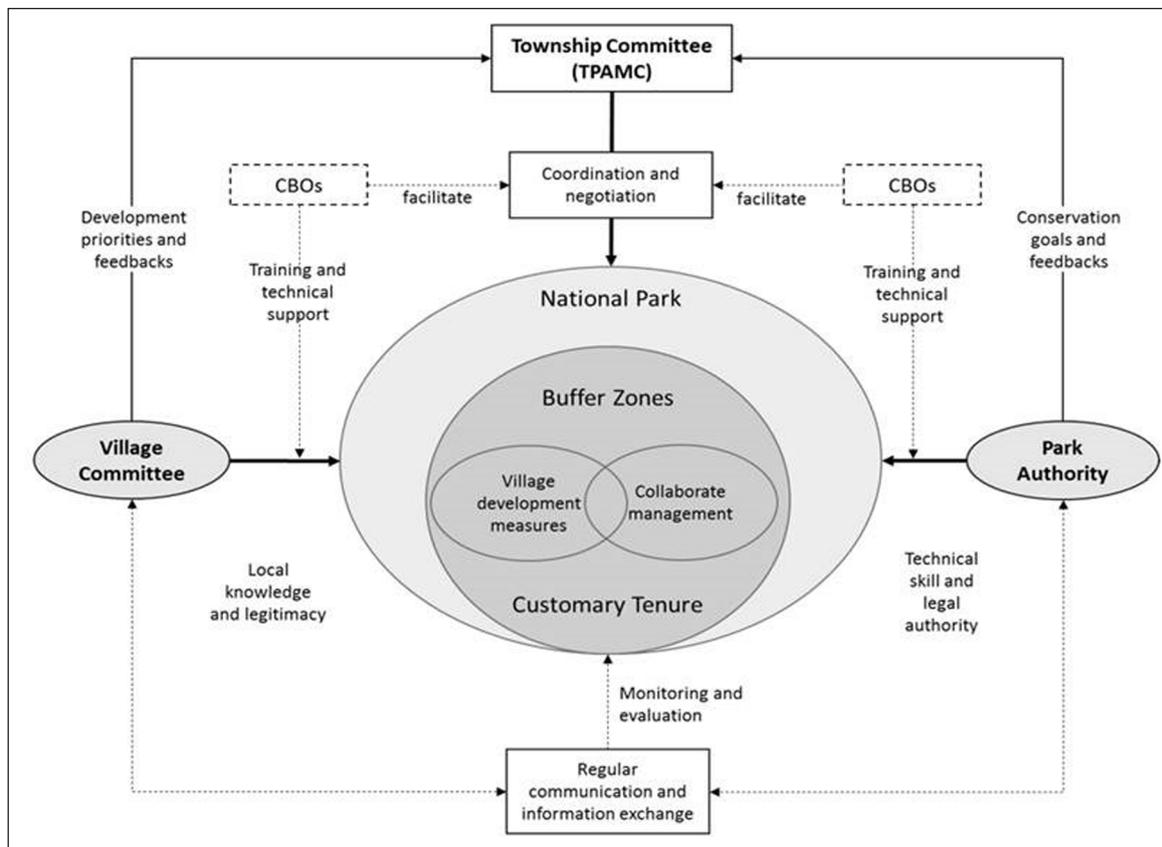


Figure 4: Co-management schema for the NTNP.

Area Management Committees (TPAMCs) were formed to coordinate stakeholders, including park staff, law enforcement agencies, and civil society and community representatives. TPAMCs were charged with the duty to establish co-management agreements, create income generating opportunities, improve staff capacity and create community awareness. The conceptual arrangement of co-management activities primarily focused on the designation of buffer zones through the formal recognition of customary lands inside the national park (**Figure 4**). Collaborative resource monitoring and livelihood support options were the core activities of co-management. Community-based Organizations (CBOs), including local and international NGOs served as bridging organizations to facilitate township committee meetings and to provide training and financial support in implementing co-management activities.

The Participatory Monitoring and Management project was the first pilot project implemented under this co-management framework. Two villages (Hlaing Doke in Kanpetlet township and Hee Laung in Mindat township) were selected as pilot project sites. The project ran for 18 months with the technical and financial support of Spectrum (SPECTRUM, 2015). It focused on collaborative monitoring and allowed communities to organize and collect data, interpret and manage them, with support from park rangers and local NGOs (Danielsen *et al.* 2009; Aung *et al.* 2015; Spectrum 2015). This process was characterized by the organization of Community Monitoring Groups (CMGs) involving community members, park rangers, and representatives of Spectrum. They collectively established a cost effective local resource monitoring mechanism and conflict reduction platform (Andersen 2015). Although the project is recognized by the state,⁶ locally-shaped institutions are not formally recognized. Therefore, basic co-management commitments by the state (through park authorities) are not respected. For instance, the park authorities are unable to immediately respond to community monitoring needs in checking illegal hunting activities (Key informant interviews, June 2016). This depicts a situation where the state lacks the capacity to effectively implement her largely top-down initiative, and does not allow for the build-up of local institutions that can support such a process. Catalyzing agents (WCS and Spectrum) lack the independence to objectively mediate the co-management process, and to follow-up to ensure that all parties respect their commitments (Danielsen *et al.* 2009).

3.2.1. Components of Constitutionality in the Natma Taung

In the case of the Natma Taung, both government and local institutions seek to reduce people-park conflicts and to counter threats from timber, wildlife, and non-timber forest product extractors. The emic perception for resource conservation provides a foundation for creating a new co-management institution between the state and local people. The presence of customary institutions such as traditional village councils, farmer associations, and religious groups also serves as pre-existing institutions to implement collective resource management activities. The regular meetings among CMGs, serves as a useful platform for negotiation and knowledge sharing amongst partner groups. However, the roles and responsibilities of CMG representatives are not clearly defined; this limits active engagement by members in project activities. Despite the presence of outside catalyzing agents to coordinate state actors and local communities in the process (Principle IV), they are strongly influenced by state agencies. Catalyzing agents usually require an approval from park authorities to meet and discuss with community representatives. In most cases, the project activities of both catalyzing agents (WCS and Spectrum) are not well-coordinated. For Instance, the competing interests and actions between WCS and Spectrum, tends to diminish the interests of park authorities to support project activities. Instead of focusing on the local institution building process, catalyzing agents prioritize the provision of support to park authorities to implement law enforcement activities. The continuous dependence on external funding sources also reduces the momentum of project activities after the initial funding period.

State level recognition (Principle VI) for co-management in Natma Taung is relatively higher than other management approaches. At the national level, the National Biodiversity Strategy and Action Plan (NBSAP) provides strategic directions to establish co-management and recognize local indigenous knowledge. At the local level, the CMGs are authorized to identify monitoring priorities based on their local knowledge and experiences. Although the projects integrate local knowledge and innovations in resource monitoring and assessment, the existing legal frameworks do not recognize the role of traditional councils in governing local resources. The limited empowerment of traditional institutions is still an obstacle to promote endogenous rule-crafting by local people. As proven in other cases (see Haller *et al.* 2016; Chabwela and Haller 2010), state recognition (and the conditions under which this occurs) is yet to be fully understood. As the

⁶ The pilot initiative is included in the National Biodiversity Strategy and Action Plan (NBSAP) which the government has committed to the Convention on Biological Diversity (CBD) (Forest Department 2015).

co-management initiatives are driven by higher level state institutions and external organizations, local state actors are not fully motivated to devolve management power to the local communities. The empowerment of local state authorities is essential to effectively implement the project activities. This also includes the revision of existing park regulations, giving local communities the opportunity to craft new institutions to guide their negotiations.

4. Discussion

Calls for meaningful bottom-up processes have been made by conservation scientists and practitioners for some decades now (Ribot 2002; Pretzsch *et al.* 2014). The constitutionality construct, a product of empirical cases, demonstrates potentials in engaging such meaningful processes (Haller *et al.* 2016; Haller *et al.* 2018). The objectives of this paper were to (i) identify and document the manifestations of two constitutionality principles in Korup and Natma Taung and (ii) discuss the potentials of these principles to (re)orient co-management in both cases. Finally, and based on these insights, the paper sought to discuss future co-management perspectives, with a focus on addressing top-down and bottom-up power issues in the context of natural resource management.

Co-management efforts in both cases gained momentum fairly recently with calls for the integration of local communities in the process. Although this was recommended, emphasis in most of the co-management arrangements focused on conservation and gave limited premium to livelihood support. The limited technical, institutional and financial capacity of the state to engage in co-management, saw the streaming in, of outside catalyzing agents whose actions were further compromised by state influence.

Both cases demonstrate the lack of trust by park communities on the state: The Cameroon case is rooted in previous land dispossession for some villages during the creation of the Korup. Here, affected villages were invited for consultations – essentially a one-way communication from the state to the communities (Agrawal 2005), with the promise of resettlement and the provision of livelihood support (Mbile *et al.* 2005; Schmidt-Soltau & Brockington 2007). While this relocation promise was never respected, the state compelled the population to respect the institutions (laws) of the land (Nijborg 2000; Diaw and Tiani 2010), making it difficult for the community to trust future state-led negotiations. Even more crucial is the virtual suppression, systematic breakdown and/or transformation of endogenous cultural institutions, with significant implications on the state of resource management regimes (Haller 2001). The situation in Myanmar may lead to improved outcomes especially as there was an extensive consultation with communities who equally have strong attachments to their existing customary land regulations. However, the seemingly weak influence of outside catalyzing agents, and their continued alignment with the state might hamper future negotiations.

Disparate manifestations of the two constitutionality principles could be identified for both cases (**Figure 5**). For instance, while a number of outside catalyzing agents contributed during co-management negotiations, their activities (mostly short-term and uncoordinated) are largely tailored by the state. The legal framework in Cameroon and Myanmar makes provision for decentralized co-management, and implicitly recognizes the values of indigenous knowledge and practice (Buchenrieder and Balgah 2013; Aung *et al.* 2015; Kimengsi and Moteka 2018). Although this recognition is in alignment with international commitments, initiatives are conceived at higher levels and only introduced to communities. Higher level state recognition is largely timid. The effectiveness of constitutionality principles in both cases, remains unclear and weak in both co-management arrangements. For instance, the two elements of focus in this paper: outside catalyzing agents and higher level state recognition and support, show significant lapses; while catalyzing agents do not have a free-hand to facilitate an engaging co-management process and adapting them, the state-driven agenda still predominates, with little room for locally-driven rules to be crafted, let alone recognized. Potentials, however exist for the activation of these principles.

The co-management process in both cases show an involvement of state actors, outside catalyzing agents and village representatives. Village representatives however, largely accompany the implementation process without fully understanding how it functions. Co-management in Cameroon implicitly converted many target villages into dependent groups at the mercy of limited yearly financial support for village development (Kimengsi *et al.* 2018). Considering the implicit emphasis on conservation in previous co-management attempts, theoretical reflections on the revision of the legal and institutional frameworks in both contexts, to effectively recognize locally designed institutions in co-management need to be given due consideration, including context-specific livelihood diversification options.

Furthermore, theoretical reflections on the constitutionality concept in the context of co-management should consider the following lines of reflection linked to *activating catalyzing agents* and *gaining higher*

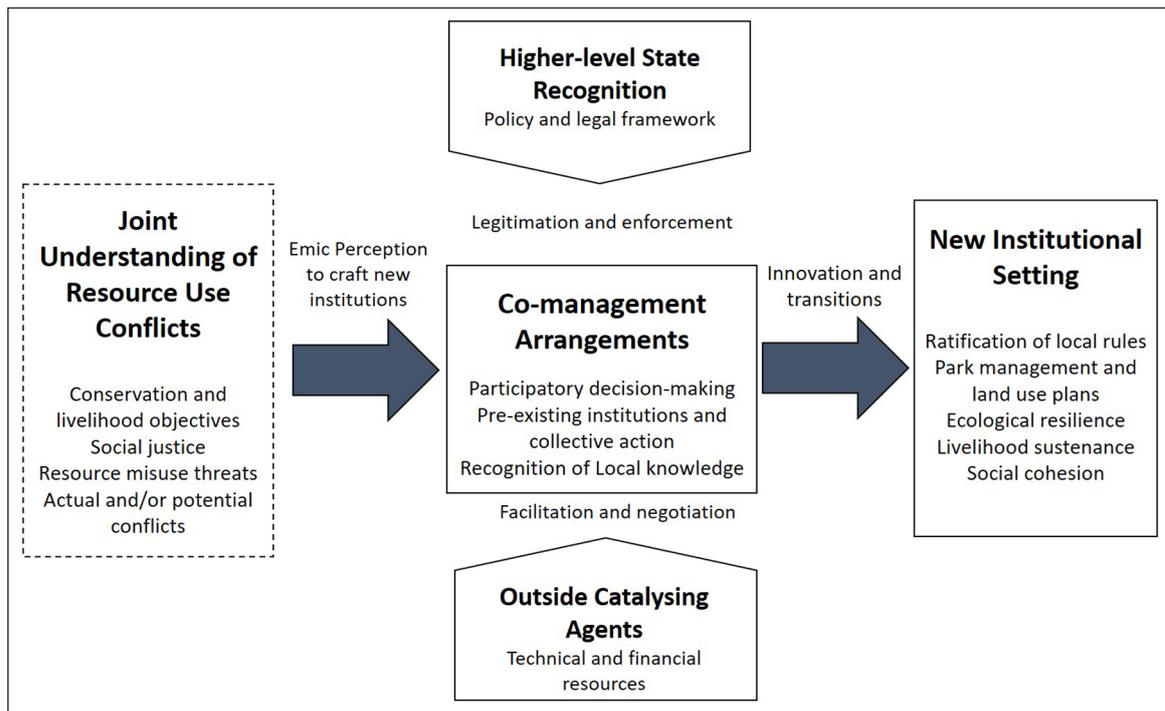


Figure 5: Linkages between constitutionality components and co-management initiatives in study areas.

level state recognition and support. Firstly, identifying locally crafted rules that have historically been linked to the management of protected areas and discussing ways of their further “legitimation”, could be one way of activating local institutions. Knowledge on the potential role of traditional institutions in improving local bargaining power and decision making in co-management is required. Designing approaches to strengthen existing traditional institutions and identifying ways to increase their negotiation capacity represents one interesting line of thought. Second, local catalyzing agents need to be created and/or enforced by partnering with outside catalyzing agents. Investigating the possibilities of a strong alliance between these agents, and ways of sustaining them could be one avenue for further investigation (Kimengsi *et al.* 2019). Thirdly, possibilities of enforcing local catalyzing agents to enhance advocacy and lobbying for government to recognize local constitutions around protected areas should be effectively investigated upon. These lines of thought are relevant in identifying elements to further strengthen the existing principles, and/or in contributing to the development of new sets of principles to regulate natural resource use.

5. Conclusion

While there is ample documentation on the role of informal institutions in regulating natural resource use (Watson 2003; Ashenafi & Leader-Williams 2005; Yami *et al.* 2009), there is a dearth of literature on local resource users’ perceptions of institution-building processes, and their motivation to strategically negotiate in such processes. A knowledge of this perspective does not only further improve the collective action and voice of local resource users, but serves as an ice breaker to governments to further recognize the need for fairer negotiations and agreements – a somewhat on-going co-management process. It is evident that the state has a crucial role to play in the constitutionality process specifically with respect to striking a balance between decentralized initiatives and the establishment of more accommodating frameworks under which constitutionality can thrive (Haller *et al.* 2016).

The theoretical construct on constitutionality, particularly the two principles in this case, present an interesting issue to advance discussions on local institution-building processes in co-management across diverse contexts. By focusing on the emic perceptions of local actors on the institution-building process, it presents a shift from the Ostrom design principles which highlights the ingredients for successful institutions (Ostrom 1990), and Ensminger’s philosophy on the role of actors’ bargaining power in the institution-building process (Ensminger 1992). This relatively recent construct still begs for further empirical grounding. Its application should be subsequently situated in the context of the state’s (un)willingness to allow for improvements in current natural resource management institutions (Li 2007). Therefore, insights into the historical institutionalism of natural resource governance should be given much attention in the context of

natural resource management (Haller *et al.* 2013). Specifically, as we argue in this paper, emphasis should be placed on understanding conditions, under which catalyzing agents, and the state could support and recognize such endogenous processes which have potentials to improve resource management outcomes. In both case studies, the conditions under which catalyzing agents and higher-level state recognition can be achieved in diverse political systems still remains fully uncovered. This paper challenges future research to further situate the two constitutionality principles and their potentials in the context of local power play and social learning.

Acknowledgement

We acknowledge the local stakeholders who participated during the interviews and focus group discussions. We equally acknowledge the anonymous reviewers, whose comments and literature support have helped to improve the work.

Funding Information

This research received funding from: (i) The Excellence Initiative Grant of the *Technische Universität Dresden* (Grant ID: F-003631-553-U1G11170701), financed by the German Research Foundation (DFG), and (ii) the DAAD (Grant ID: 57129429).

Competing Interests

The authors have no competing interests to declare.

References

- Acciaioli, G.** (2009). Conservation and community in the Lore Lindu National Park: Customary custodianship, multi-ethnic participation, and resource entitlement. In C. Warren, & J. McCarthy (Eds.), *Community, environment and local governance in Indonesia: Locating the commonwealth* (pp. 88–118). Oxon, UK: Routledge.
- Agrawal, A.** (2005a). *Environmentality: Technologies of Government and the Making of Subjects*. Durham, NC: Duke University Press. DOI: <https://doi.org/10.1215/9780822386421>
- Agrawal, A.** (2005b). Environmentality: Community, intimate government, and the making of environmental subjects in Kumaon, India. *Curr. Anthropol.*, 46(2), 161–190. DOI: <https://doi.org/10.1086/427122>
- Agrawal, A., & Ribot, J.** (1999). Accountability in Decentralization: A Framework with South Asian and West African Environmental Cases. *Journal of Development Areas*, 33, 473–502.
- Alemayehu, N. A., Vandenabeele, N., & Arts, B.** (2015). Performance of participatory forest management in Ethiopia: Institutional arrangement versus local practices. *Critical Policy Studies*, 1–20.
- Andersen, K. E.** (2015). *Study of Upland Customary Communal Tenure in Chin and Shan States*. Yangon, Myanmar: Livelihoods and Food Security Trust Fund (LIFT). Retrieved from <https://www.lift-fund.org/my/node/5831>
- Armitage, D., Marschke, M., & Plummer, R.** (2008). Adaptive co-management and the paradox of learning. *Global Environmental Change*, 18, 86–98. DOI: <https://doi.org/10.1016/j.gloenvcha.2007.07.002>
- Ashenafi, Z. T., & Leader-Williams, N.** (2005). Indigenous common property resource management in the Central Highlands of Ethiopia. *Human Ecology*, 33(4), 539–563. DOI: <https://doi.org/10.1007/s10745-005-5159-9>
- Asmamaw, A., & Auch, E.** (2016). Participative Innovation Platforms (PIP): Guidelines for analysis and development of commercial forest product value chains in Sudan and Ethiopia. *CHAINS Working Paper; 3rd Edition. CHANCES IN Sustainability: Promoting natural resource based product chains in East Africa (CHAINS)*. Tharandt, Germany: Technische Universität Dresden.
- Aung, M.** (2007). Policy and practice in Myanmar's protected area system. *Journal of Environmental Management*, 84(2), 188–203. DOI: <https://doi.org/10.1016/j.jenvman.2006.05.016>
- Aung, P. S., Adam, Y. O., Pretzsch, J., & Peters, R.** (2015). Distribution of forest income among rural households: A case study from Natma Taung national park, Myanmar. *Forests, Trees and Livelihoods*, 24(3), 190–201. DOI: <https://doi.org/10.1080/14728028.2014.976597>
- Ballet, J., Kouamékan, J., Koffi, M., & Komona, K. B.** (2009). Co-management of natural resources in developing countries: The importance of context. *Économie internationale*, 120, 53–76.
- Benson, C.** (2012). Conservation NGOs in Madang, Papua New Guinea: Understanding Community and Donor Expectations. *Society & Natural Resources*, 25(1), 71–86. DOI: <https://doi.org/10.1080/08941920.2011.603141>

- Borrini-Feyerabend, G.** (1997). Participation in conservation: Why, what, when, how? In: G. Borrini-Feyerabend (Ed.), *Beyond fences: Seeking social sustainability in conservation* (pp. 20–31). Gland, Switzerland: IUCN.
- Borrini-Feyerabend, G., Farvar, M. T., Nguinguiri, J. C., & Ndangang, V. A.** (2007). Co-management of Natural Resources: Organising, Negotiating and Learning-by-Doing. Heidelberg (Germany): GTZ and IUCN, Kasperek Verlag. Reprint 2007 [first publication in 2000].
- Brockington, D.** (2002). *Fortress Conservation. The Preservation of the Mkomazi Game Reserve, Tanzania*. Oxford: James Currey.
- Brown, D., & Schreckenberg, K.** (2001). *Community forestry: facing up to the challenge in Cameroon*. London, UK: ODI.
- Bruns, B. R.** (2008). Aiding Adaptive Co-management in Irrigation: Governing Shared Resources: Connecting Local experience to Global Challenges. Presented at the Biennial Global Conference of the International Association for the Study of the Commons. England: Cheltenham, July 14 to 18, 2008.
- Buchenrieder, G., & Balgah, R. A.** (2013). Sustaining livelihoods around community forests. What is the potential contribution of wildlife domestication? *The Journal of Modern African Studies*, 51(1), 57–84. DOI: <https://doi.org/10.1017/S0022278X12000596>
- Campbell, B., Sayer, J. A., Frost, P., Vermeulen, S., Pérez, M. R., & Prabhu, A. C.** (2001). Assessing the performance of natural resource systems. *Ecol. Soc.*, 5(2), 22. DOI: <https://doi.org/10.5751/ES-00316-050222>
- Carlsson, L., & Berkes, F.** (2005). Co-management: Concepts and methodological implications. *Journal of Environmental Management*, 75, 65–76. DOI: <https://doi.org/10.1016/j.jenvman.2004.11.008>
- Chabwela, H. N., & Haller, T.** (2010). Governance issues, potentials and failures of participative collective action in the Kafue Flats, Zambia. *International Journal of the Commons*, 4(2), 621–642. DOI: <https://doi.org/10.18352/ijc.189>
- Connick, S., & Innes, J. E.** (2003). Outcomes of collaborative water policy making: Applying complexity thinking to evaluation. *J. Environ. Plan. Manag.*, 46(2), 177–197. DOI: <https://doi.org/10.1080/0964056032000070987>
- Danielsen, F., Burgess, N. D., Balmford, A., Donald, P. F., Funder, M., Jones, J. P. G., & Yonten, D.** (2009). Local participation in natural resource monitoring: A characterization of approaches. *Conservation Biology*, 23(1), 31–42. DOI: <https://doi.org/10.1111/j.1523-1739.2008.01063.x>
- Devitt, P.** (1988). *The People of the Korup Protected Area. Report on phase 1 of the Socio-Economic Survey*. WWF and Republic of Cameroon
- Diaw, M. C., & Tiani, A. M.** (2010). Fences in Our Heads: A Discourse Analysis of the Korup Resettlement Stalemate. *Journal of Sustainable Forestry*, 29(2–4), 221–251. DOI: <https://doi.org/10.1080/10549810903548138>
- Ensminger, J.** (1992). *Making a Market. The Institutional Transformation of an African Society*. Cambridge: Cambridge University Press.
- Faye, P.** (2016). Adding Scepticism About 'Environmentality': Gender Exclusion Through a Natural Resources Collectivization Initiative in Dionewar, Senegal. In P. Bose, & H. van Dijk (Eds.), *Drylands Forests: Management and Social Diversity in Asia and Africa* (pp. 95–114). Dordrecht: Springer. DOI: https://doi.org/10.1007/978-3-319-19405-9_5
- Faye, P., Haller, T., & Ribot, J.** (2017). Shaping Rules and Practice for More Justice? Local Conventions and Local Resistance in Eastern Senegal. *Human Ecology*, 8, 1–11. DOI: <https://doi.org/10.1007/s10745-017-9918-1>
- Fischer, A., Wakjira, D. T., Weldesemaet, Y. T., & Ashenafi, Z. T.** (2014). On the interplay of actors in the co-management of natural resources – A dynamic perspective. *World Development*, 64, 158–168. DOI: <https://doi.org/10.1016/j.worlddev.2014.05.026>
- Fletcher, F.** (2017). Environmentality unbound: Multiple governmentalities in environmental politics. *Geoforum*, 85, 311–315. DOI: <https://doi.org/10.1016/j.geoforum.2017.06.009>
- Fon, F.** (2013). An analysis of co-management on the development and preservation of natural resources on the Mt. Cameroon National Park. *Wildlife Specialists Training College*. Retrieved from http://www.ecoledefaune.org/internal_images/rapport-b2-forlemu-fon.pdf
- Fondufe, S. L., Kimengsi, J. N., & Gwan, S. A.** (2016). Strengthening women's participation in the sustainable management of the Bimbia-Bonadikombo Community Forest of Cameroon: Challenges and blueprints. *International Journal of Sustainable Development Research*, 2(4), 24–29. DOI: <https://doi.org/10.11634/233028791503745>
- Forest Department.** (2015). *National Biodiversity Strategy and Action Plan for Myanmar (2015–2020)*. Nay Pyi Taw. Retrieved from <https://www.cbd.int/doc/world/mm/mm-nbsap-v2>

- Forest Department.** (2017). *Natma Taung National Park: Five Years Management Plan (2018–2023)*. Nay Pyi Taw, Myanmar.
- Foucault, M.** (1991). Governmentality. In G. Burchell, C. Gordon, & P. Miller (Eds.), *The Foucault Effect: Studies in Governmentality* (pp. 87–104). Hemel Hempstead: Harvester Wheatsheaf.
- Frame, T. M., Gunton, T., & Day, J. C.** (2004). The role of collaboration in environmental management: An evaluation of land and resource planning in British Columbia. *J. Environ. Plan. Manag.*, 47(1), 59–82. DOI: <https://doi.org/10.1080/0964056042000189808>
- Galvin, M., & Haller, T.** (Eds.) (2008). *People, protected areas and global change: Participatory conservation in Latin America, Africa, Asia and Europe*. Bern, Switzerland: Geographica Bernensia.
- Geiser, U., & Rist, S.** (Eds.) (2009). *Decentralisation meets local complexity: Local struggles, state decentralisation and access to natural resources in South Asia and Latin America*. Bern, Switzerland: Geographica Bernensia.
- Gondo, T.** (2011). Adaptive Co-management of Natural Resources: A Solution or Problem? *Journal of Human Ecology*, 33(2), 119–131. DOI: <https://doi.org/10.1080/09709274.2011.11906354>
- Haller, T.** (2001). Rules which pay are going to stay: Indigenous institutions, sustainable resource use and land tenure among the Ouldeme and Platha, Mandara Mountains, Northern Cameroon. *Bulletin de l'APAD*. <http://journals.openedition.org/apad/148> Accessed 29/01/18
- Haller, T.** (2007). Understanding Institutions and Their Links to Resource Management from the Perspective of New Institutionalism. Retrieved from <http://www.north-south.unibe.ch/content.php/publications>
- Haller, T.** (Ed.) (2010). *Disputing the Floodplains: Institutional Change and the Politics of Resource Management in African Floodplains*. Leiden: Brill. DOI: <https://doi.org/10.1163/ej.9789004185326.i-454>
- Haller, T.** (2013). *The Contested Floodplain. Institutional Change of the Commons in the Kafue Flats, Zambia*. Lanham: Lexington, Rowman & Littlefield.
- Haller, T., Acciaioli, G., & Rist, S.** (2016). Constitutionality: Conditions for Crafting Local Ownership of Institution-Building Processes. *Society & Natural Resources*, 29(1), 68–87. DOI: <https://doi.org/10.1080/08941920.2015.1041661>
- Haller, T., Belsky, J. M., & Rist, S.** (2018). The constitutionality approach: Conditions, opportunities, and challenges for bottom-up institution building. *Human ecology*, 46(1), 1–2. DOI: <https://doi.org/10.1007/s10745-018-9966-1>
- Haller, T., & Chabwela, H.** (2009). Managing common pool resources in the Kafue Flats, Zambia: From common property to open access and privatisation. *Development Southern Africa*, 26(4), 555–567. DOI: <https://doi.org/10.1080/03768350903181340>
- Haller, T., & Galvin, M.** (2011). Challenges for participatory conservation in times of global change: Lessons from a comparative analysis and new developments. In U. Wiesmann, & H. Hurni (Eds.), *Research for sustainable development: Foundations, experiences, and perspectives* (pp. 467–503). Bern, Switzerland: Geographica Bernensia.
- Haller, T., & Merten, S.** (2018). Crafting our own rules: Constitutionality as a bottom-up approach for the development of by-laws in Zambia. *Human ecology*, 46(1), 3–13. DOI: <https://doi.org/10.1007/s10745-017-9917-2>
- Hulme, D., & Murphree, M.** (Eds.) (2001). *African Wildlife and Livelihoods*. Portsmouth, UK: Heinemann.
- Istituto Oikos, & BANCA.** (2011). *Myanmar Protected Areas: Context, Current Status and Challenges*. Retrieved from <http://www.istituto-oikos.org/files/download/2012/MyanmarProtectedAreas>
- Kimengsi, J. N.** (2014). Threats to Ecotourism Development and Forest Conservation in the Lake Barombi Mbo Area of Cameroon. *Journal of International Wildlife Law and Policy*, 17(4), 213–230. DOI: <https://doi.org/10.1080/13880292.2014.957033>
- Kimengsi, J. N., & Balgah, R. A.** (2017). Repositioning Local Institutions in Natural Resource Management: Perspectives from Sub-Saharan Africa. *Schmollers Jahrb. J. Context. Econ*, 137, 149–172. DOI: <https://doi.org/10.3790/schm.137.1-2.149>
- Kimengsi, J. N., & Moteka, P. N.** (2018). Revisiting participatory forest management and community livelihoods in the Kilum-Ijim montane forest landscape of Cameroon. *International Journal of Global Sustainability*, 2(1), 39–55. DOI: <https://doi.org/10.5296/ijgs.v2i1.12766>
- Kimengsi, J. N., Pretzsch, J., Auch, E., & Balgah, R. A.** (2019). WWF's Green Business Model in Protected area conservation and Livelihoods Sustainance in Cameroon: The need for a shift in approach? *Environment & Natural Resources Research*, 9(1), 9–24. DOI: <https://doi.org/10.5539/enrr.v9n1p9>
- Larson, A., & Ribot, J.** (2004). Democratic decentralization through a natural resource lens: An introduction. *European Journal of Development Research*, 16(1), 1–25. DOI: <https://doi.org/10.1080/09578810410001688707>

- Li, T. M.** (2007). *The will to improve: Governmentality, development, and the practice of politics*. Durham, NC: Duke University Press,.
- Lund, J. F., & Bluwstein, J.** (2018). When conservation research goes awry: A reply to Mascia and Mills. *Conservation Letters*, 11(3), e12461. DOI: <https://doi.org/10.1111/conl.12461>
- Lund, J. F., Rutt, R. L., & Ribot, J.** (2018). Trends in research on forestry decentralization policies. *Current Opinion in Environmental Sustainability*, 32, 17–22. DOI: <https://doi.org/10.1016/j.cosust.2018.02.003>
- Mbile, P., Vabi, M., Meboka, M., Okon, D., Arrey-Mbo, J., Nkonghoe, F., & Ebong, E.** (2005). Linking management and livelihood in environmental conservation: Case of the Korup National Park Cameroon. *Journal of Environmental Management*, 76(1), 1–13. DOI: <https://doi.org/10.1016/j.jenvman.2005.01.009>
- Meek, C. L.** (2013). Forms of collaboration and social fit in wildlife management: A comparison of policy networks in Alaska. *Global Environmental Change*, 23(1), 217–228. DOI: <https://doi.org/10.1016/j.gloenvcha.2012.10.003>
- Mustalahti, I.** (2006). How to handle the stick: Positive processes and crucial barriers of participatory forest management. *Forests, Trees and Livelihoods*, 16(2), 151–165. DOI: <https://doi.org/10.1080/14728028.2006.9752553>
- Ngai, S. G.** (1993). *Report on the field survey to the Natma Taung proposed national park*. Myanmar: Yangon.
- Nijborg, W.** (2000). Evaluation of the resettlement process: The case of Korup National Park with emphasis on the Ikondokondo I Pilot Scheme. Unpublished report, Korup Project, Mundemba, Cameroon.
- Olsson, P., Folke, C., & Berkes, F.** (2004). Adaptive co-management for building resilience in social-ecological systems. *Environmental Management*, 34(1), 75–90. DOI: <https://doi.org/10.1007/s00267-003-0101-7>
- Ostrom, E.** (1990). *Governing the commons: The evolution of institutions for collective action*. Cambridge, UK: Cambridge University Press. DOI: <https://doi.org/10.1017/CBO9780511807763>
- Oyono, P. R.** (2004). The social and organisational roots of ecological uncertainties in Cameroon's forest management decentralisation model. *The European Journal of Development Research*, 16(1), 174–191. DOI: <https://doi.org/10.1080/09578810410001688798>
- Plummer, R., & Armitage, D.** (2007). A resilience-based framework for evaluating adaptive co-management: Linking ecology, economics and society in a complex world. *Ecological economics*, 61(1), 62–74. DOI: <https://doi.org/10.1016/j.ecolecon.2006.09.025>
- Plummer, R., Baird, J., Armitage, D., Bodin, Ö., & Schultz, L.** (2017). Diagnosing adaptive comanagement across multiple cases. *Ecology and Society*, 22(3). DOI: <https://doi.org/10.5751/ES-09436-220319>
- Plummer, R., Baird, J., Dzyundzyak, A., Armitage, D., Bodin, Ö., & Schultz, L.** (2017). Is adaptive co-management delivering? Examining relationships between collaboration, learning and outcomes in UNESCO biosphere reserves. *Ecological Economics*, 140, 79–88. DOI: <https://doi.org/10.1016/j.ecolecon.2017.04.028>
- Plummer, R., Crona, B., Armitage, D., Olsson, P., Tengö, M., & Yudina, O.** (2012). Adaptive comanagement: A systematic review and analysis. *Ecology and Society*, 17(3). DOI: <https://doi.org/10.5751/ES-04952-170311>
- Pretzsch, J.** (2005). Forest related rural livelihood strategies in national and global development. *Forest Trees Livelihoods*, 15, 115–127. DOI: <https://doi.org/10.1080/14728028.2005.9752515>
- Pretzsch, J.** (2014). Paradigms of Tropical Forestry in Rural Development. In J. Pretzsch, D. Darr, H. Uibrig, & E. Auch (Eds.), *Forests and rural development* (pp. 7–49). Berlin, Heidelberg: Springer-Verlag. DOI: <https://doi.org/10.1007/978-3-642-41404-6>
- Pretzsch, J., & Auch, E.** (forthcoming). Methodological lessons from research on rural innovation and adaptation: A plea for constructivist and action-oriented research approaches in forestry. *Tropical Forestry Focus*. Institute for International Forestry and Forest Products. Tharandt, Germany: Technische Universität Dresden.
- Pretzsch, J., Darr, D., Lindner, A., Uibrig, H., & Auch, E.** (2014). Prospects for forest-based rural development. In J. Pretzsch, D. Darr, H. Uibrig, & E. Auch (Eds.), *Forests and rural development* (pp. 375–384). Berlin Heidelberg: Springer-Verlag. DOI: <https://doi.org/10.1007/978-3-642-41404-6>
- PSMNR.** (2012). Collaborative management approach and conservation incentives concept. Programme for the Sustainable Management of Natural Resources (PSMNR), Ministry of Forestry and Wildlife (MINFOF).
- Rao, M., Htun, S., Platt, S. G., Tizard, R., Poole, C., Myint, T., & Watson, J. E. M.** (2013). Biodiversity conservation in a changing climate: A review of threats and implications for conservation planning in Myanmar. *Ambio*, 42(7), 789–804. DOI: <https://doi.org/10.1007/s13280-013-0423-5>

- Ratner, B. D., Burnley, C., Mugisha, S., Madzudzo, E., Oeur, I., Kosal, M., Rüttinger, L., Chilufya, L. N., & Adriázola, P.** (2017). Facilitating multistakeholder dialogue to manage natural resource competition: A synthesis of lessons from Uganda, Zambia, and Cambodia. *International Journal of the Commons*, 11(2), 733–753. DOI: <https://doi.org/10.18352/ijc.748>
- Ribot, J. C.** (1999). Decentralization, participation, and accountability in Sahelian forestry legal instruments of political-administrative control. *Africa*, 69(1), 1–39. DOI: <https://doi.org/10.2307/1161076>
- Ribot, J. C.** (2002). *Democratic decentralization of natural resources: Institutionalizing popular participation*. Washington, DC: World Resources Institute. DOI: https://doi.org/10.1057/9781403981288_6
- Rist, S., Chiddambaranathan, M., Escobar, C., & Wiesmann, U.** (2006). “It was hard to come to mutual understanding...”—The multidimensionality of social learning processes concerned with sustainable natural resource use in India, Africa and Latin America. *Systemic Practice and Action Research*, 19(3), 219–237. DOI: <https://doi.org/10.1007/s11213-006-9014-8>
- Rist, S., Chiddambaranathan, M., Escobar, C., Wiesmann, U., & Zimmermann, A.** (2007). Moving from sustainable management to sustainable governance of natural resources: The role of social learning processes in rural India, Bolivia and Mali. *Journal of Rural Studies*, 23(1), 23–37. DOI: <https://doi.org/10.1016/j.jrurstud.2006.02.006>
- Sayer, J. A.** (1983). A survey of Natma Taung (Mount Victoria), Southern Chin Hills. Myanmar: Yangon.
- Schmidt-Soltau, K., & Brockington, D.** (2007). Protected Areas and Resettlement: What Scope for Voluntary Relocation? *World Development*, 35(12), 2182–2202. DOI: <https://doi.org/10.1016/j.worlddev.2007.02.008>
- Schultz, L., Duit, A., & Folke, C.** (2011). Participation, adaptive co-management, and management performance in the world network of biosphere reserves. *World Development*, 39(4), 662–671. DOI: <https://doi.org/10.1016/j.worlddev.2010.09.014>
- Sekhar, N. U.** (2000). Decentralized natural resource management: From state to co-management in India. *Journal of environmental planning and management*, 43(1), 123–138. DOI: <https://doi.org/10.1080/09640560010793>
- Shackleton, S., Campbell, B., Wollenberg, E., & Edmunds, D.** (2002). Devolution and community-based natural resource management: Creating space for local people to participate and benefit? London: ODI. DOI: <https://doi.org/10.4314/zsn.v36i1.18553>
- Smedstad, J. A., & Gosnell, H.** (2013). Do adaptive comanagement processes lead to adaptive comanagement outcomes? A multicase study of long-term outcomes associated with the National Riparian Service Team's place-based riparian assistance. *Ecology and Society*, 18(4). DOI: <https://doi.org/10.5751/ES-05793-180408>
- SPECTRUM.** (2015). Participatory Monitoring and Management (PMM) in Natmataung National Park, Chin State, Myanmar. Retrieved from <https://spectrumsdkn.org/en/news/55-community-knowledge-in-natmataung>.
- Tint, K., Springate-Baginski, O., & Gyi, M. K. K.** (2011). Community forestry in Myanmar: Progress and potentials. Yangon: ECCDI.
- Watson, E.** (2003). Examining the potential of indigenous institutions for development: A perspective from Borana, Ethiopia. *Development and Change*, 34(2), 287–309. DOI: <https://doi.org/10.1111/1467-7660.00306>
- Yami, M., Vogl, C., & Hausera, M.** (2009). Comparing the effectiveness of informal and formal institutions in sustainable common pool resources management in Sub-Saharan Africa. DOI: <https://doi.org/10.4103/0972-4923.64731>

How to cite this article: Kimengsi, J. N., Aung, P. S., Pretzsch, J., Haller, T., & Auch, E. (2019). Constitutionality and the Co-Management of Protected Areas: Reflections from Cameroon and Myanmar. *International Journal of the Commons*, 13(2), pp. 1003–1020. DOI: <https://doi.org/10.5334/ijc.934>

Submitted: 18 September 2018

Accepted: 18 June 2019

Published: 30 October 2019

Copyright: © 2019 The Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC-BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See <http://creativecommons.org/licenses/by/4.0/>.

]u[

International Journal of the Commons is a peer-reviewed open access journal published by Ubiquity Press.

OPEN ACCESS 