



# Reconstituting the role of indigenous structures in protected forest management in Cameroon



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## ABSTRACT

This article illustrates how institutional transitional processes influence the intended sustainability outcomes in protected forest management in Cameroon, using the case of the Tofala Hill Wildlife Sanctuary. The study revealed that the major setback in attaining sustainable forest management does not necessarily lie in the conflicting interests of actors, but also in the social processes that guided the negotiation of these conflicting interests. Processes initiated by bureaucratic institutions did not adequately appreciate the efforts of the existing indigenous structures. The differences in the modelling of social change by the agents of change had negative impacts on governance outcomes and disrupted collaborative actions. This study argues that indigenous structures should not just be regarded as mediators in the processes of forest management. Their actions are influenced by powerful actors (elites). They are thus embedded in complex configurations that can retard sustainable forest management processes. There is a need to carefully explore and understand the various contexts in which these complex configurations influence forest management in order to foster sustainable collaborative management.

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## 1. Introduction

Natural resource management issues in developing countries are increasingly mimicking western models, while the contribution of indigenous cultures and institutions are often overlooked (Awono et al., 2014; Fairhead and Leach, 1995). Before colonization took firm roots in Africa, the indigenous rulers occupied a unique position in the management of natural resources. They were accepted by their subjects as the religious, political, judicial and the spiritual embodiment of their communities and therefore took responsibility in the management of community resources (Appiah-Opoku, 1999). Today, the right of indigenous rulers in the management of community resources have been compromised (Yufanyi Movuh, 2012). Commonly, indigenous resource management structures are unrecognised and this may lead to management deficits in terms of the organisation of collective action needed for effective outcomes (Awono et al., 2014; Cleaver, 2002). Recently, it has been recognised that collaborative planning is an effective approach to natural resource management, particularly in situations where there are multiple actors with conflicting interests (Raitio, 2012; Wodschow et al., 2016). This is linked to the notion that reconciling conflicting interests will improve collaboration actions (Tieguhong et al., 2015).

Notwithstanding, it is also noted that reconciling conflicting interests in natural resource management is a hard choice (Nkemnyi et al., 2013).

Institutional and policy factors are more important than any other types of underlying causes to effectively combat degradation and deforestation in the long-term (Somorin et al., 2014; Tegegne et al., 2016). Interventions aimed at changes in environmentally-related incentives, knowledge and institutions, decision making and behaviour impact forest governance (Agrawal et al., 2008; Chhatre and Agrawal, 2008). However, despite the emergence of different forest governance regimes, less is known about the effectiveness and efficiency in term of forest conservation and local development (De Koning, 2011).

Failure in forest governance in Cameroon has been attributed to institutional challenges, including inadequate collaborations, inequity and lack of social justice among other causes (Alemagi, 2011; Epule et al., 2013; Mbatu, 2015). Failure to achieve the intended policy objectives has long been explained by the social characteristics of the context in which policy is implemented (De Koning, 2011). It is important to understand the extent to which different actors participating in policy implementation are actually institutionalised (Meagher et al., 2014). This is because most often, formalised (bureaucratic) structures reflect a consensual model of society, suggesting that the new arrangements work for everyone, instead of a conflictual model questioning for whom these practices work and why and who pay the price for them.

The participation of local institutions in forest governance offers an improved context for local decision making on environmental problems and access to resources (Forsyth et al., 1998; Leach et al., 1997; Sanginga

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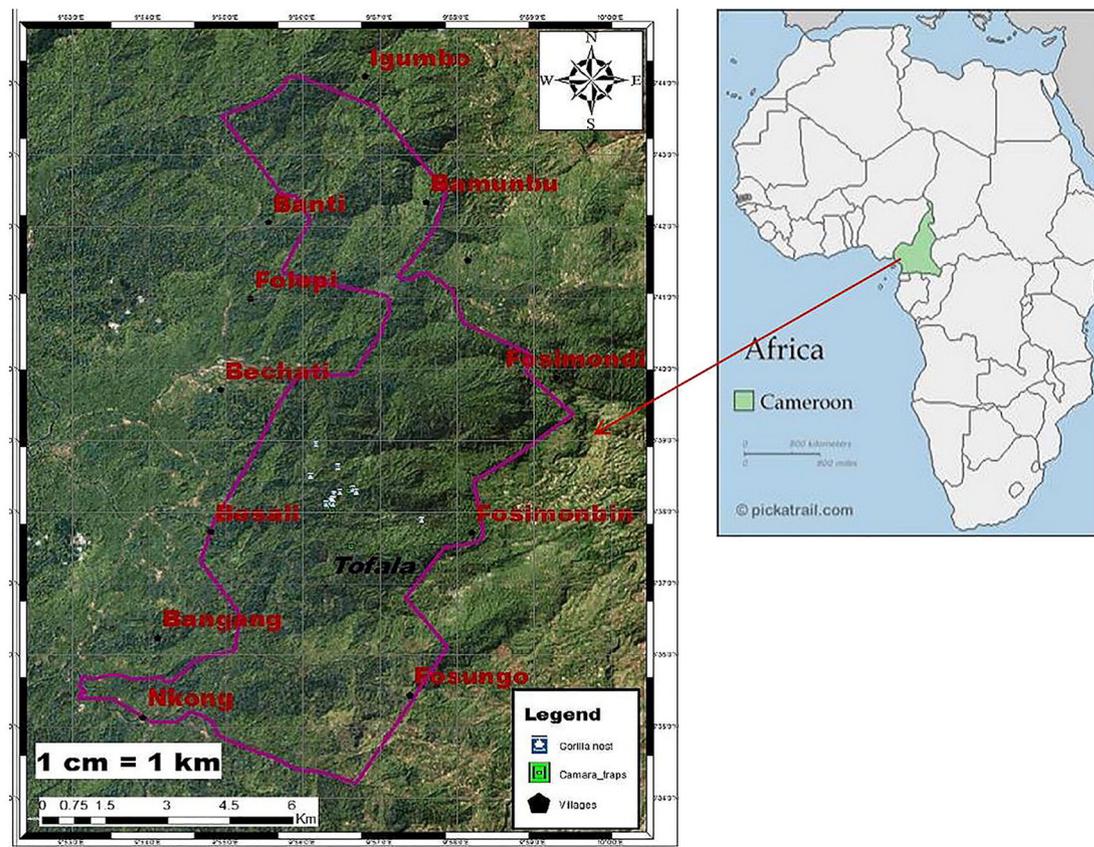


Fig. 1. Location of the study area  
Source: ERuDeF 2014 and Pickatrail.com

et al., 2010). A corrective analysis of the roles of local community members (expressed through norms, beliefs, local regulations and practices) indicates the impact of new forest management institutions (De Koning, 2011). The analysis of shifts in roles enables the understanding of how new knowledge is introduced into socio-cultural life and how networks and local knowledge influence the functioning of an increasingly complex governance system (Cleaver, 2001, 2002).

The theory of institutional bricolage helps us understand how interests and roles influence forest governance. Institutional bricolage refers to the construction and borrowing of disparate institutional elements in order to create frameworks for practices and decision making (Cleaver, 2002). It also emphasises the active roles of actors; iterating that actors are not just linked to appropriate ways of doing and being, but also to believe or traditions. Thus, understanding institutional involvement in forest management is an essential precursor to finding solutions to the challenges involved.

This study examined the roles of traditional structures in forest management in the Tofala Hill Wildlife Sanctuary (THWS); how the roles of traditional structures in forest governance have changed as a result of the introduction of bureaucratic structures and the shift that has occurred in forest management leadership and how it has affected land use.

## 2. Approach and methods

### 2.1. Study area

This study was conducted in the THWS located in the South West Region of Cameroon. THWS is located specifically between 5°370–5°420 latitude and 9°530–9°580 longitude (Fig. 1). There are ten main local communities (Fossimondi, M'mockmbin, Bamumbu, Folepi, Bechati, Banti, Igumbo, Besali, Bangang and Nkong). These ten local communities are spread across two sub-divisions (Wabane and Alou)

in the study area. Each community is governed by traditional structures, which has a paramount chief at the head. The THWS was selected as the study location because it was in the process of transferring management roles from indigenous to bureaucratic structures<sup>1</sup> ('protected area management teams'). Processes that led to the transfer and transformation of roles could be documented as they progressed.

THWS can be considered as a biodiversity hotspot of global significance due to the presence and diversity of important large mammals, birds and plants species (Nkemnyi et al., 2012). It is also home to the most threatened of the African apes, the Cross River gorilla (Dunn et al., 2014). Despite the rich biodiversity of the THWS, poaching, habitat loss and fragmentation are major challenges. Additionally, more than 80% of the local inhabitants depend on the forest for their livelihoods (Nkemnyi et al., 2013; Nkemnyi et al., 2011). The competition between forest resources for local livelihoods and wildlife conservation is currently a challenge in the area as diverse conflicting interests need to be reconciled.

### 2.2. Theoretical framework

This research has followed the theory of institutional bricolage as developed by Cleaver (2002). The theory of institutional bricolage emphasises the active roles of the actors (Fig. 2). It theorises actors as conscious and unconscious social agents who are deeply embedded in social life, but still able to analyse and react to a diverse set of situations that confront them. Actors' agency is then influenced by their authority, legitimacy and identity. The 'institutional bricolage' approach helps explain the interactions between actors and structures with a focus on the dynamics of institutional arrangements surrounding forest management.

<sup>1</sup> Bureaucratic structures referred to organised structures with a high degree of formality in the way it operates.

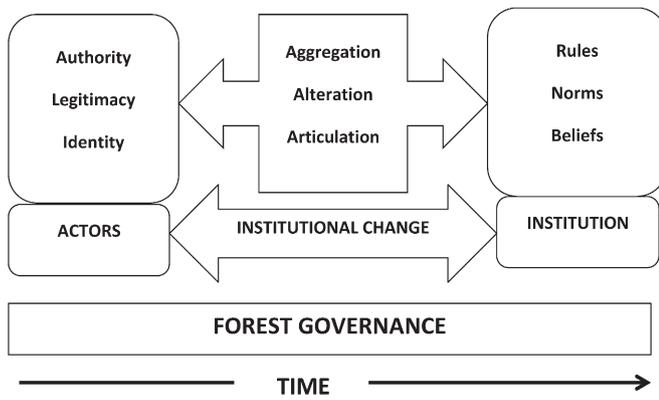


Fig. 2. Institutional Bricolage and forest management  
Source: Adapted from De Koning (2011).

It challenges the view of institutions as formal structures with defined boundaries (mainstreamed institutionalism) and view institutions as network of arrangement with blurred boundaries and intersecting domains and scales. Bricolage theorises the introduction of new structures into existing structures, leading to the institutional aggregation, alteration and articulation, which all affect institutional functioning. Aggregation refers to the merging of bureaucratic and socially embedded institutions. Alteration refers to the adaptation or reshaping of both bureaucratic and socially embedded institutions. Articulation refers to the resistance to merger of socially embedded institutions because of their misalignment with bureaucratic institutions. Given that data collected for this study coincided with a period of structural shift in management roles of the THWS, this theoretical framework was found adequately to support the analyses of shifts of roles in forest management.

### 2.3. Research process and data collection

Data for this study were collected from January 2013 through August 2015. The units of analysis were ten villages (community) situated adjacent to the THWS. In each village a number of actors (community members) were selected based on their knowledge of the functioning of indigenous institutions. The actors included community leaders (quarters heads or chiefs), members of village the traditional council, members of village development committee, leaders of women and youth groups, members of the forest management committee, representatives of the Forest Agency (Ministry of Forestry and Wildlife - MINFOF), the local administrators (Ministry of Territorial Administration and Decentralisation - MINATD) and the local non-profit organisation (NGO) promoting wildlife conservation (Environment and Rural Development Foundation - ERuDeF). The main method of data collection included interviews, semi-structured questionnaires and field observations.

Focused interviews (Kvale and Brinkmann, 2009) were used to explore the roles of indigenous structures in forest management. The interviewing process enabled the understanding of indigenous structures, their roles in forest management and the variations between structures and roles across villages. It also explored the changes that have occurred in forest management. A total of 128 interviews were conducted: 119 with actors in the ten villages and nine with local government officials and local NGO (ERuDeF) staff. On average, 10 actors were interviewed per village.

The shift in management roles and their influence on land use were explored using semi-structured questionnaires. Questionnaire administration targeted households and was designed to elicit information about how the change of roles in forest management has affected land use or forest management. Specifically, the questionnaire explores how the forest activities of the households have changed due to the change in the management structure. A total of 245 households were sampled randomly in 6 communities (approximately 10% of households

per community). The selection of the sampled communities followed the guidelines outlined by Tongco (2007). The sampled communities were selected to represent the structural setting and the cultural diversity of the study areas. A total of 46 households were sampled in Bechati, 30 in Banti, 48 in Besali, 39 in Folepi, 42 in M'mockmbin and 40 in Fossimondi community.

Field observations were used principally to witness the forest practices and the community organisation. Participant and non-participant observation were used as described by Kumar (2014). This contributed to achieving an in-depth perspective on the case study. In addition, secondary data such as forest management policies, plans and other relevant literatures on the case study were also collected and reviewed.

### 2.4. Data analysis

The theoretical framework (institutional bricolage) and the study objectives helped to organise the analyses, shape the process of data collection and identify the important cause-effect relationships. Three different perspectives were employed in data analysis: literal, interpretative and reflexive (Mason, 2002). Literal analysis enabled the interpretation of data in their literal form. By using interpretative analyses, data collected were interpreted based on the demography of the study area, the researchers experience and expertise. Finally, reflexive analyses drew from interpretative and literal analyses to compare the results obtained with other studies in order to provide a more robust contextualised analysis.

Information collected during the interviews was processed first by coding (Crang and Cook, 2007). Coding during fieldwork was used to review the field notes and to dissect information meaningfully while keeping the relations between the parts intact. The different answers were classified according to the main themes linked to the research questions and the theoretical framework. The information obtained was processed to describe the different processes of institutional bricolage in the THWS. Data collected from the questionnaire survey were cross-checked for consistency and completeness in the field. Administered questionnaires were reviewed constantly in the field and questionnaires that missed out relevant information for data analysis were rejected and the household replaced in the field by another randomly selected household. SPSS version 20 was used for descriptive analyses. Chi-Square test ( $\chi^2$ ) was used to analyse the extent to which significant differences occurred in forest activities across the studied communities. This helped in explaining the effects of changes in management policies. The combination of qualitative and quantitative data provided in-depth analyses of the effects of roles and shifts in roles on forest management.

## 3. Results

Indigenous structures are customarily responsible for governance at the local community level (village) in Cameroon (Brain, 1967). Their roles are clearly visible most especially in local community with low visibility of the state representatives. They have the customary rights to manage land, forest and natural resources in their local communities (Oyono et al., 2012). They are responsible for setting rules and norms to be followed by community members and ensured that the beliefs of the community are protected.

### 3.1. Structure and role of traditional structures in the THWS

Despite slight cultural differences that existed among the ten studied villages, they had the same indigenous structures (Fig. 3).

Each village is headed by a paramount chief locally call 'fon'. The fon is the focal point and strength of the indigenous system. Customarily, community members owed loyalty to him. He had sacred attributes and performs important rites for the well-being of his subjects (community members). The fon was assisted in leadership by the chiefs and notables ('bekem') appointed by him. Generally, chiefs were assigned as

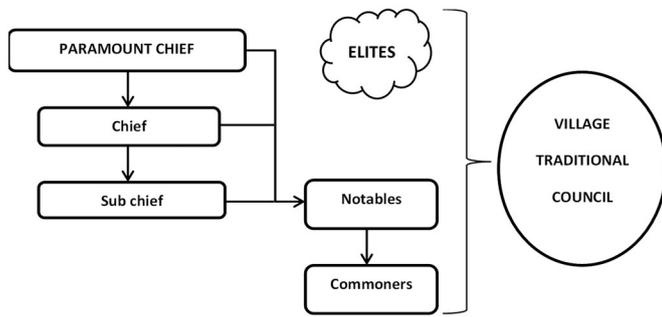


Fig. 3. Indigenous system structures in the THWS.

custodian of the law in their neighbourhoods ('quarters') by the fon. They were referred locally to as quarter heads. Notables were either appointed by the fon or the chief to assist in the decision making board. It was also observed that the local custom did not permit women to hold any key leadership positions in the indigenous structure. Only women from the rural families with a specific inherited title ('mafua' or 'mofor<sup>2</sup>') were allowed to participate in leadership, most often as observers.

The village traditional council was made of up of elected members representing all social groups recognised in the communities. The elites appeared to be invisible in the whole structure but were observed to play key roles in influencing decisions both at the household and community level. "...we always need to get advice from our elites before taking any major decision in the village because they are the one exposed to 'development', they know better what is best for us and the community" ... noted an interviewee in the Besali village.

### 3.2. Indigenous structures and forest principles before the THWS

Before the creation of the THWS, forests were mainly managed through indigenous structures overseen by the paramount chief (Table 1). Indigenous structures enjoyed benefits for making decisions about the use of communal land and forest and settling disputes over forest access. These benefits included fees paid by member of the village presenting land dispute cases before the village traditional council. The fee was paid in kind and the specifications varied from one community to another.

Table 1 Forest management principles before the advent of the THWS.

Land acquisition was observed to be by inheritance and first occupancy in some communities. Community members were permitted to establish farming plots in the forest area and subsequently became owners based on effective occupancy. Only men could inherit or acquire land through the above mentioned means. Inherited land could be transferred, sold out or rented to other community members needing more land for agricultural purposes or construction provided the process respects traditional norms.

### 3.3. Traditional structures and forest practices after the THWS

The creation of the THWS in September 2014 by the Prime Ministerial Decree Number 20145212 of September 29, 2014<sup>3</sup> introduced changes in forest governance (Table 2).

<sup>2</sup> The title is given to the most preferred daughter of the rural family by the king makers in accordance to the will of the family head.

<sup>3</sup> Great News: Tofala Hill Wildlife Sanctuary is a Fully Protected Site!!! <http://www.erudef.org/news-mainmenu/item/great-news-tofala-hill-wildlife-sanctuary-is-a-fully-protected-site> (retrieved 25/01/2016)

Table 1  
Forest management principles before the advent of the THWS.

Right	Specification	Restriction and sanctions
Acquisition	Inheritance/first occupancy	Cannot sell to outsiders without consultations with paramount chief
Access	All community member has access to communal land (forest)	Access restricted for non-members of the community
Transfer	Allocation of family plots for agriculture production/inheritance. Restricted sale permitted in some communities	Transfer of individual rights to non-members of the community were restricted
Wood	Restricted for family consumption and local construction purposes	Authorisation needed in some cases for exploring wood for construction purposes
Hunting	All community member have access	Some culture restrict hunting of gorillas and chimpanzees
Non-timber forest products	All community member have access	Harvesting is strictly during the day/no restriction for some communities

"The Prime Ministerial Decree Number 20145212 of September 29, 2014 states that a Sanctuary called Tofala Hill Wildlife Sanctuary in Wabane and Alou Subdivisions in the Lebialem Division, SW Region covering a surface area of 8087 (Eight thousand and eighty seven) hectares is created and the Administrative Headquarter of the Sanctuary will be in Bechati, in Wabane Sub-division."

Without further negotiations, all land and resources within the gazetted area were now governed by the Cameroon government represented by an appointed conservator. The creation of the sanctuary also opened up the opportunities to introduce other stakeholders interested in developing the resources within the gazetted area. All communities that had communal land within the gazetted area lost these rights. All resource allocations and disputes within the gazetted area were now under the supervision of the conservator.

Table 2 Forest management principles after the creation of the THWS.

The right of traditional institutions as the main managers of communal land in the THWS was observed to be limited after the creation of the wildlife sanctuary. All major decisions within the area allocated for the wildlife sanctuary were the responsibilities of the

Table 2  
Forest management principles after the creation of the THWS.

Right	Specification	Restriction and sanctions
Acquisition	All communal rights within the gazetted area lost Acquisition by community members not possible	All violations sanctioned by public law governing protected areas
Access	Access to resources within the gazetted area is supervised by the conservator	Access restricted for all activities that do not support the sanctuary conservation objectives
Transfer	Transfer of resources management is supervised by the conservator	All violations sanctioned by public law governing protected areas
Wood	Supervised collection for fuel wood	No exploitation for non-fuel wood purposes
Hunting	Hunting strictly restricted	All violations sanctioned by public law governing protected areas
Non-timber forest products	Access for non-timber product is strictly supervised	None authorised access sanctioned by public law governing protected areas



Fig. 4. Structure of forest governance before the creation of the THWS.

conservator. Notwithstanding, traditional structures were still recognised actors in the management process (Fig. 5).

3.4. Forest management before the creation of the THWS

Before the creation of the THWS, forest management could be modelled as a linear process (Fig. 4). The paramount chief was at the head of decision making and through hierarchical process information on forest management processes, governed by traditional norms, was passed to commoners. However, our field research also revealed that although the management process appeared to be linear, this structure represented the public image of the process. Actual implementation processes were revealed to be complex and dynamic. For instance, the elites were among the strongest actors in term of their influence at both communal and household levels but they did not feature in the publicly acknowledged management structures. Other individuals (commoners) have also influenced decision-making through the power of their wealth and/or local political relevance. For instance, a ‘witch doctor’ might be favoured in judgement if found guilty because of the community services he/she renders.

The complex realities of forest management presented opportunities for resource to be misappropriated according to the official norms of management responsibility.

3.5. Forest management after the creation of the THWS

Although the creation of the THWS was officially validated in September 2014, the process that led to the creation began in 2004. The creation process of the sanctuary introduced a new bureaucratic institutional structure into forest governance. The Forest Management Committee - FMC and the Forest Protection Fund Committee - FPFC were created. The FMC was created to facilitate the development of forest resources for the benefit of the entire community. The FPFC was created to provide support for off-forest income-generating activities. The committees were constituted by elected community members. However, the committees did not replace the role of the traditional structures in forest management. Instead they facilitated the collaboration between the conservation institution (Environment and Rural Development Foundation – ERuDeF) and the indigenous structures.

Field materials revealed constant conflicts between the newly created structures (FMC and FPFC) and the traditional structures over the rights to manage decisions pertaining to the wellbeing of the forest. The sustainability of the newly introduced institutions was observed to be short-lived as the anticipated benefits of the structures were not forthcoming. The conflicts were aggravated in 2009 when ERuDeF publicly declared its intention to create a wildlife sanctuary across the forest area. This public declaration brought in the interventions of the Ministry of Forestry and Wildlife (MINFOF) and Ministry of Territorial Administration (MINATD), whose consultations and collaborations has led to the official creation of the THWS in 2014 – and a new management structure (Fig. 5). The interest of MINFOF and MINATD remains represented by the conservator of the wildlife sanctuary. Policy implementation was to be facilitated by Eco guards, ERuDeF and the village traditional council of each community involved.

3.6. The effect of the shift in the management structure of the THWS

The structure of forest management before and after the creation of the THWS (Figs. 4 and 5 respectively) revealed a transition from a publicly simple to a publicly complex structure. The realities in the field were complex than they appear in theory. Our field material revealed the aggregation of institutional ideas and knowledge and the reconciliation of forest management principles in both structures (Table 2). The open access of communal land became supervised access. The traditional norms in forest management were obliged to accommodate the bureaucratic norms (in a process of alteration). Interviews with members of indigenous institutions also indicated the emphasis of their rights ...‘we cannot leave the forest, if the government preferred the gorillas in the forest to us, then it will have to forcefully take us out of the forest. We are ready to fight for our forest...’ noted an interviewee in the Fossimondi community. ‘We need the forest because it is the only place where we get income to educate our children; our ancestor also lives there, so if the government is talking about conservation it should be ready to resolve all of these issues.’ noted an interviewee in the Bechati Community. Our field interviews also revealed that some members of the FMC and FPFC (who were supposed to protect the interests of the wildlife conservation structures) argued against the new management structure. ‘...I am not happy at this point because none of our interests are protected. I was hoping to benefit a lot from this position but I have not seen any benefits so far...’ noted a member of FMC in the Bangang community. Interviews with the members of ERuDeF staff also confirmed that though the elites did not have a visible role in the forest management process, they played a major role in stimulating local people to adopt or accept new forest management practices. It was noted that many petitions were written against the creation of the THWS by elites. These petitions were reportedly overruled by the dominant actors concerned.

Interviews and field observations revealed that although there has been a shift in institutional arrangements in forest management, the new institutional structures did not yet have the required capacity and resources to effectively control the implementation of the new policies. Local community members were of the opinion that their position as main managers of the forest had been compromised and not adequately addressed. Most of the interviewees had negative attitudes toward the new management structures and declared they were not willing to

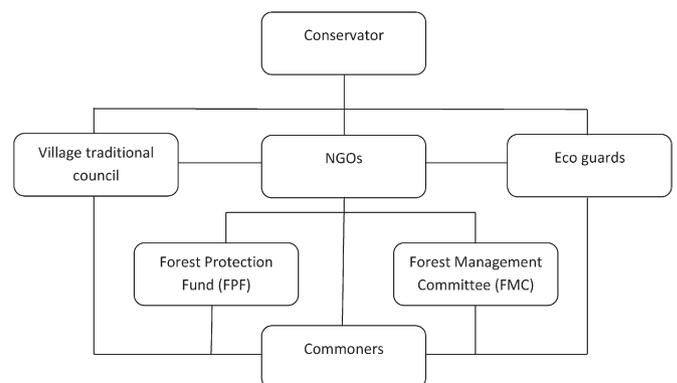


Fig. 5. Structure of forest management after the creation of the THWS.

collaborate with them. The management plan for the THWS has not been developed, implying that effective monitoring and evaluation could not be executed. Eco guards, who were supposed to supervise the implementation of the new wildlife policies, were not yet appointed to duty.

Study material revealed that due to development processes the indigenous structural system aggregated with local government system. Both systems, collaboratively, were responsible for handling land and forest disputes. However, the indigenous structures still laid emphases on their positions as the main custodian of the land and forest resource (articulation). The loss of complete ownership over decision patterning to land and forest disputes by the indigenous structures were observed to influence the effectiveness of the structure.

### 3.7. The effect of institutional transition on land use

*“We have started cutting down the forest to cultivate our crops; when the forest finally disappears, the NGO will go away because there will be no more forest left for conservation...”* noted an interviewee in the Fossimondi community. Using a questionnaire survey, an assessment of changes in livelihood activities within the past ten years revealed that although there has been no major change, there have been slight changes in the type of livelihood activities practiced. None of the changes in livelihood activities were clearly linked to the shift in the management structure. However, community members were alert to the impact wildlife conservation might have on their livelihoods if policy implementation is effective. Despite farming being the main livelihood activity (86%) in the study area, most of the communal land previously used for farming is now allocated to the protected area. There existed no significant difference between livelihood activities across the surveyed communities  $\chi^2 (15, N = 245) = 16.37, p = 0.36$ . This implies that changes in land use introduced by wildlife conservation policies will affect livelihood activities in a similar way. Thus the implementation of wildlife policies may generate new livelihood challenges in the area if effective planning is not ensured.

## 4. Discussion

The concept of bricolage used in this study shows that the three processes of aggregation, alteration and articulation have been used in forest management between the period of 2004 and 2014. The results revealed the borrowing of existing institutional elements to create frameworks of practices and decision making (Cleaver, 2002). Community members merged to form the FMC and FPFC (aggregation). The role of traditional structure as the main manager of forest resources were altered (alteration) with the conservator becoming head of the new management structure. The results also revealed the importance placed on roles/rights by agents of traditional structures as the legitimate managers of the forest. This case study revealed elites as ‘invisible hands’ in the management process at the local level. They were ‘invisible’ in the sense that they acted on the processes through other actors (local community members). Their views were translated into actions by these local people. This make it difficult to actually differentiate the actions of the local people based on their personal needs and the actions and needs and actions based on elites influence.

The results showed that the creation of the THWS has introduced new actors (working in bureaucratic structures) in forest management. The new actors had different views of forest governance (promoting wildlife conservation) as compared with the formal agenda (of livelihoods) pursued and regulated by the socially-embedded traditional structures. The shift in institutional and leadership structures in forest management led to the suppression of the previous forest managers (in the traditional structures). Their newly marginalised role in forest management taught them that they were largely unrecognised; so they developed negative attitudes toward the new management structures. A management deficit developed with respect to the organisation

of effective collective action (Cleaver, 2002; Rishi, 2007). In addition, the fact that the new structures were not yet equipped to start operating the newly crafted policies had a deleterious impact on conservation outcomes. The case of the Fossimondi community where local community members mobilised and physically reserved a large portion of the forest for agricultural purposes illustrates their hostility to conservation policy. Their agency constituted a conscious reaction to sustainable forest management (De Koning and Cleaver, 2012). Local community members justified their encroachment to forest resources as a means to safeguard their rights in forest management. This is in line with the argument that safeguarding the right of local community members in forest management is still a major challenge (Awono et al., 2014). In this line, it is also argued that the process to enable local people access forest resources are often too expensive and complex, leaving them with no choice than to engage in illegal practices (Foundjem-Tita et al., 2014a). Moreover, majority of local people are unaware of law governing forest access (Foundjem-Tita et al., 2014b).

The introduction of bureaucratic institutions in forest governance has been argued to pose major challenges to sustainable forest management worldwide (Bond, 2014). Case studies in Cameroon also revealed that the introduction of external actors in forest governance is the main cause of conflicts and that these were part of the causes blocking the expected management outcome (Ezzine de Blas et al., 2011; Samndong and Vatn, 2012; Tieguhong et al., 2015). Although local participation in forest governance is widely encouraged, in practice, it is dominated by bureaucratic institutions (Lund and Rutt, 2015). Failure in forest governance in Cameroon has been attributed to institutional challenges (Alemagi, 2011; Wodschow et al., 2016). This study revealed that the shift in forest management responsibilities did not adequately consider the capacity and the resources needed for effective governance. While inciting the systematic hostility of victims of livelihoods threats, this gap in the management system also gives opportunistic actors the means to extort resources from the system.

Based on extensive field research we argue here that both the traditional and bureaucratic structures in forest governance have management deficits. On the one hand, while the traditional system of management appears to be simple and convenient in implementation, in practice, the processes were very complex. On the other hand, the bureaucratic structures appear to bring in a wide range of expertise, which could benefit forest resource management. Yet the results showed that the processes leading to the transfer of power to the exogenous structures did not adequately value the roles of the previous managers (of the traditional structures). The lack of efficiency in the transition in governing structures generated conflicts and negative perceptions toward the bureaucratic structures. So conflicts in forest management might not result only from diverse actors’ interests but could be introduced in the process of institutional transition. The fact that agents of /actors in/ indigenous structures felt they were ignored in the transitional processes limited the opportunities for effective collaborative forest management. Indigenous structures were not just mediators in forest governance processes. Their participation was influenced by power actors (elites). Thus, they were situated in complex configurations that can constrain sustainable forest management. Thus, there is a need to carefully explore how traditional management institutions operate and how they could better influence forest policy and practice in order to foster sustainable collaborative management.

## 5. Conclusion

The introduction of bureaucratic structures in forest management - as in the case of THWS - has been shown to threaten the identity and role of traditional structures. The results revealed the streamlining of services and roles which had earlier benefited local people. The forest management roles of traditional structures were reduced to that of a mediator with little decision making power in the management process. Recognising that their identity and authority was threatened by the new

management system agents in /actors in/ the traditional structures developed retaliating mechanisms. Notwithstanding, our field evidence strongly suggest that it was not simply a set of conflicting interests at stake in poor governance outcomes but it was also the (poorly) planned process of institutional transitions.

The new forest management arrangement in the THWS was observed to have created new opportunities for forest resources misappropriation. The transitional process has not transferred management power efficiently and there were no functional institutional systems in place to successfully implement the newly-crafted policies. The processes that guided the transfer of forest management rights were observed to be unsustainable and a smooth transition to sustainable forest management could not be achieved. This suggested that there was an urgent need to address the processes that led to the transfer of forest governance rights during the creation of the protected areas.

Acknowledging that bureaucratic structures could bring in expertise and opportunities that can benefit forest management at the local level, there is a need to closely examine the settings through which the interests of the bureaucratic structures is presented to reflect and represent the interest and objectives of the traditional structures. The latter need urgent integration into the planning process for protected areas prior to the transfer of management rights. This would confront the assumption of decision makers in bureaucratic institutions new arrangements, created outside – and imported into – local society, work for everyone in the same way and create no conflicts of interests (Meagher et al., 2014).

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### References

- Agrawal, A., Chhatre, A., Hardin, R., 2008. Changing governance of the world's forests. *Science* 320 (5882), 1460–1462. <http://dx.doi.org/10.1126/science.1155369>.
- Alemagi, D., 2011. Sustainable development in Cameroon's forestry sector : progress, challenges, and strategies for improvement. *Afr. J. Environ. Sci. Technol.* 5 (2), 65–72.
- Appiah-Opoku, S., 1999. Indigenous economic institutions and ecological knowledge: a Ghanaian case study. *Environment Systems and Decisions* 19 (3), 217–227.
- Awono, A., Somorin, O.A., Eba'a Atyi, R., Levang, P., 2014. Tenure and participation in local REDD+ projects: insights from southern Cameroon. *Environ. Sci. Pol.* 35, 76–86. <http://dx.doi.org/10.1016/j.envsci.2013.01.017>.
- Bond, J., 2014. A Human Security Perspective on Natural Resource Conflict and Rural Development (No. 1). Copenhagen. Retrieved from [www.ifro.ku.dk](http://www.ifro.ku.dk).
- Brain, R., 1967. *The Bangwa of West Cameroon: A Brief Account of Their History and Culture*. London.
- Chhatre, A., Agrawal, A., 2008. Forest commons and local enforcement. *Proc. Natl. Acad. Sci. U. S. A.* 105 (36), 13286–13291. <http://dx.doi.org/10.1073/pnas.0803399105>.
- Cleaver, F., 2001. Institutional bricolage, conflict and cooperation in Usangu, Tanzania. *IDS Bull.* 32 (4), 26–35. <http://dx.doi.org/10.1111/j.1759-5436.2001.mp32004004.x>.
- Cleaver, F., 2002. Reinventing institutions : bricolage and the social embeddedness of natural resource management. *The European Journal of Development Reinventing Institutions* 14 (2), 11–30.
- Crang, M., Cook, I., 2007. *Analyzing field methods. Doing Ethnographies*. Sage Publications, London, California, New Delhi, Singapore, p. 244.
- De Koning, J., 2011. *Reshaping Institutions: Bricolage Processes in Smallholder Forestry in the Amazon*. Wageningen University.
- De Koning, J., Cleaver, F., 2012. Institutional bricolage in community forestry: an agenda for future research. In: Arts, B., Bommel, S.V., Ros-Tonen, M., Verschoor, G. (Eds.), *Forest-people Interfaces: Understanding Community Forestry and Bio-cultural Diversity*. Wageningen Academic Publishers, Wageningen, The Netherlands, p. 292.
- Dunn, A., Bergl, R., Byler, D., Eben-Ebai, S., Etiendem, D.N., Fotso, R., ... Williamson, E.A., 2014. Revised Regional Action Plan for the Conservation of the Cross River Gorilla (*Gorilla gorilla diehli*) 2014–2019. 2014 IUCN/SSC Primate Specialist Group and Wildlife Conservation Society, New York, NY, USA.
- Epule, E.T., Peng, C., Lepage, L., Chen, Z., 2013. Policy options towards deforestation reduction in Cameroon: an analysis based on a systematic approach. *Land Use Policy* 36, 405–415. <http://dx.doi.org/10.1016/j.landusepol.2013.09.004>.
- Ezzine de Blas, D., Ruiz-Pérez, M., Vermeulen, C., 2011. Management conflicts in Cameroonian community forests. *Ecol. Soc.* 16 (1).
- Fairhead, J., Leach, M., 1995. False forest history, complicit social analysis: rethinking some West African environmental narratives. *World Dev.* 23 (6), 1023–1035. [http://dx.doi.org/10.1016/0305-750X\(95\)00026-9](http://dx.doi.org/10.1016/0305-750X(95)00026-9).
- Forsyth, T., Leach, M., Scoones, I., 1998. *Poverty and Environment: Priorities for Research and Policy – An Overview Study*. Falmer.
- Foundjem-Tita, D., Speelman, S., D'Haese, M., Degrande, A., Van Huylenbroeck, G., Van Damme, P., Tchoundjeu, Z., 2014a. A tale of transaction costs and forest law compliance: trade permits for Non Timber Forests Products in Cameroon. *Forest Policy Econ.* 38 (2014), 132–142. <http://dx.doi.org/10.1016/j.forpol.2013.08.007>.
- Foundjem-Tita, D., D'Haese, M., Speelman, S., Degrande, A., Gyau, A., Van Damme, P., ... Van Huylenbroeck, G., 2014b. Would strictly enforced forestry regulations affect farmers' stated intentions to plant indigenous fruits trees? Insights from Cameroon. *Food Policy* 49 (P1), 95–106. <http://dx.doi.org/10.1016/j.foodpol.2014.07.003>.
- Kumar, R., 2014. *Research Methodology: A Step by Step Guide for Beginners*. fourth ed. SAGE Publications Ltd., New Delhi.
- Kvale, S., Brinkmann, S., 2009. *Interviews: Learning the Craft of Qualitative Research Interviewing*. second ed. Sage Publications, Los Angeles, London, New Delhi, Singapore.
- Leach, M., Mearns, R., Scoones, I., 1997. *Environmental Entitlements: A Framework for Understanding the Institutional Dynamics of Environmental Change* (No. 359). Brighton, UK.
- Lund, J.F., Rutt, R.L., 2015. *The Logic of Professionalization in Participatory Forestry* (No. 03). Copenhagen.
- Mason, J., 2002. *Qualitative Researching*. second ed. SAGE Publications, London, Thousand Oaks, New Delhi.
- Mbatu, R.S., 2015. Domestic and international forest regime nexus in Cameroon: an assessment of the effectiveness of REDD+ policy design strategy in the context of the climate change regime. *Forest Policy Econ.* 52 (2015), 46–56. <http://dx.doi.org/10.1016/j.forpol.2014.12.012>.
- Meagher, K., Herdt, T. De, Titeca, K., 2014. *Unravelling Public Authority: Paths of Hybrid Governance in Africa* (No. 10). 10.
- Nkemnyi, M.F., Koedam, N., De Vreese, R., 2011. *Livelihood and Conservation: Reconciling Communities' Livelihood Needs and Conservation Strategies in the Bechati Forest Area, Western Cameroon*. LAMBERT Academic Publishing, Saarbrücken, Germany.
- Nkemnyi, M.F., Nkembi, L., Nkemanteh, A.E., Nku, E.M., 2012. The Cross River gorilla and large mammals species diversity in the in the Lebialem–Mone Forest landscape, Cameroon. *Journal of Biodiversity and Ecological Sciences* 2 (1), 73–79.
- Nkemnyi, M.F., Haas, A., Etiendem, N.D., Ndobegang, F., 2013. Making hard choices: balancing indigenous communities livelihood and Cross River gorilla conservation in the Lebialem–Mone Forest landscape, Cameroon. *Environ. Dev. Sustain.* 15 (3), 841–857. <http://dx.doi.org/10.1007/s10668-012-9416-y>.
- Oyono, P.R., Samba, S.K., Biyong, M.B., 2012. Beyond the decade of policy and community euphoria: the state of livelihoods under new local rights to forest in rural Cameroon. *Conserv. Soc.* 10 (2), 173. <http://dx.doi.org/10.4103/0972-4923.97489>.
- Raitio, K., 2012. New institutional approach to collaborative forest planning on public land: methods for analysis and lessons for policy. *Land Use Policy* 29 (2), 309–316. <http://dx.doi.org/10.1016/j.landusepol.2011.07.001>.
- Rishi, P., 2007. Joint forest management in India : an attitudinal analysis of stakeholders. *Resour. Conserv. Recycl.* 51, 345–354. <http://dx.doi.org/10.1016/j.resconrec.2006.10.009>.
- Samndong, R.A., Vatn, A., 2012. Forest related conflicts in South-East Cameroon: causes and policy options. *Int. For. Rev.* 14 (2), 213–226. <http://dx.doi.org/10.1505/146554812800923336>.
- Sanginga, P.C., Ochola, W.O., Bekalo, I., 2010. *Natural Resource Management and Development Nexus in Africa*. In: Ochola, W.O., Sanginga, P.C., Bekalo, I. (Eds.), *Managing Natural Resources for Development in Africa: A Resource Book*. Nairobi, Kenya: International Institute of Rural Reconstruction (IIRR), p. 571.
- Somorin, O.A., Visseren-Hamakers, I.J., Arts, B., Sonwa, D.J., Tiani, A.M., 2014. REDD+ policy strategy in Cameroon: actors, institutions and governance. *Environ. Sci. Pol.* 35, 87–97. <http://dx.doi.org/10.1016/j.envsci.2013.02.004>.
- Tegegne, Y.T., Lindner, M., Fobissie, K., Kanninen, M., 2016. Evolution of drivers of deforestation and forest degradation in the Congo Basin forests: exploring possible policy options to address forest loss. *Land Use Policy* 51 (2016), 312–324. <http://dx.doi.org/10.1016/j.landusepol.2015.11.024>.
- Tieguhong, J.C., Ingram, V., Mala, W.A., Ndoye, O., Grouwels, S., 2015. How governance impacts non-timber forest product value chains in Cameroon. *Forest Policy Econ.* 61, 1–10. <http://dx.doi.org/10.1016/j.forpol.2015.08.003>.
- Tongco, M.D.C., 2007. Purposive sampling as a tool for informant selection. *Ethnobot. Res. Appl.* 158, 147–158.
- Wodschow, A., Nathan, I., Cerutti, P., 2016. Participation, public policy-making, and legitimacy in the EU Voluntary Partnership Agreement process: the Cameroon case. *Forest Policy Econ.* 63 (2016), 1–10. <http://dx.doi.org/10.1016/j.forpol.2015.12.001>.
- Yufanyu Movuh, M.C., 2012. The Colonial heritage and post-Colonial influence, entanglements and implications of the concept of community forestry by the example of Cameroon. *Forest Policy Econ.* 15, 70–77. <http://dx.doi.org/10.1016/j.forpol.2011.05.004>.