

Crafting Our Own Rules: Constitutionality as a Bottom-Up Approach for the development of By-Laws in Zambia

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Abstract This paper details the process of bottom-up crafting of by-laws to the state fishery laws in Zambia, the initial empirical case informing the development of the constitutionality concept. It explores the historical, political as well as environmental and economic conditions on which the process of sense of ownership of the institution building process came to be. The role of the researchers as well as the process of crafting new rules in a situation of an absent state but which is ideologically present as the owner of the resource are discussed. Furthermore, we underline that for this process the issue of bargaining power in communities that are very heterogeneous is a major challenge to a fair process for the crafting of institutions. The paper explains the main factors leading to what Haller *et al.* have labeled “constitutionality” addressing these power disparities. However, a clear examination of the process of the by-law crafting, including the content of the by-laws themselves, reveals that newly crafted institutions developed by local actors a) go beyond pure resource governance issues to include other areas related to fisheries (health and sanitation), b) address vital gender and power relations, and c) show high innovation potential to interrelate

governance issues that are locally important but not addressed in fragmented state governance.

Keywords Fishery commons · By-law development · Participation · Gender · Zambia

Introduction

The concept of constitutionality – the empowerment to design and enforce bottom-up institutions as commonly shared and owned rights and rules – is the central concept in this special issue of Human Ecology. Its formation relies in part on fieldwork we conducted in Kafue Flats, Zambia, between 2002 and 2004. While we investigated institutional change of common pool resources management, food security and nutrition among Ila agro-pastoralists and Batwa fishermen, some community members asked to use our research findings to find better solutions for the local management of the fisheries. In a subsequent participatory project we supported a bottom-up attempt to craft by-laws for local fisheries (Haller and Merten 2008). Several years after the initial research when the by-law project had been taken on by an international non-governmental organization (INGO) we developed a broader theory to understand what had occurred (Haller *et al.* 2016; see also the introduction to this special issue; Chabwela and Haller 2010; Haller 2013; Haller and Merten 2010). Our aim here is to describe the participatory process that took place to highlight central challenges and solutions for successful bottom-up institution building.

After several year of policies promoting community participation including momentum fueled by Ostrom’s work (Ostrom 1990; Ostrom 2005) and success of community – based organizations (CBOs) in resource management in the 1990s and 2000s, a sense of frustration had emerged. Many

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conservation projects were not locally perceived as participatory but rather as covert top-down approaches even if embedded in decentralization schemes (Brockington *et al.* 2008; Carlsson and Berkes 2005; Cook and Kothari 2001; Galvin and Haller 2008; Haller *et al.* 2008; Larson and Ribot 2004). However, Agrawal (2005), focusing on the state and relating to Foucault's idea of governmentality (Burchell *et al.* 1991; Foucault 1982), labeled the building of state subjects in an environmental context 'environmentality' based on Indian forestry cases where local actors did adopt state-driven environmental policies. However, his approach did not sufficiently address power dynamics and did not include strategies for government policies locally to exclude others from the forests (Acciaioli 2008). Extending the concept of environmentality, Haller and colleagues labeled experienced bottom-up processes of institution building as rather processes of 'constitutionality' – the embodiment of a local sense of ownership in the institution building process (Chabwela and Haller 2010; Haller *et al.* 2016; Haller and Merten 2010). This approach, firstly, traces the conditions in which people with different levels of bargaining power collectively enabled themselves to regain control over resources they used to manage and to reclaim the authority to craft rules in areas where they had eroded. Secondly, rather than addressing which institutional setting can most effectively manage common pool resources (CPRs), we suggest the more important issue is how local actors are empowered, in line with a new political ecology debate (Biersack 1999; Blaikie 2006; Ribot 2012). Thirdly, the question of whether local actors have a sense of ownership of these resources, or whether there is constant insecurity of having them taken away by powerful state or market actors in a weak neoliberal state needs to be addressed. Who, for example, is responsible for upholding law and order in an emerging trading place if the state fails and local people are not empowered to do so?

The case presented here is unusual in the general debate on how a sense of ownership of the institution building process can emerge under the constellation of asymmetric power relations as it did in the Kafue Flats: actors showed differences in bargaining power related to wealth, gender, generational and ethnic divisions. For example, women who fished for subsistence and sale did not usually have a say in the management of the fisheries although they greatly contributed to the local diet. Wealthy cattle-owners in contrast claimed to control parts of the rivers through ritual powers, contesting the claims of fishermen who lived in settlements with a different ethnolinguistic background. Among government stakeholders bargaining power was shaped through their position in the administration. The power and motivation of all these stakeholders influence the resource management of interconnected adjacent communities, which are further affected by resource exploitation by individuals based on legal as well as moral claims to CPRs. In pre-colonial contexts the development of

common property institutions for the management of CPRs such as fisheries, wildlife and pasture had been related to seasonal resource flows and issues of reciprocity between local residential and clan related groups (Haller 2013; Haller and Merten 2008; Haller and Merten 2010). These were, however, not only embedded in resource institutions, but also in gender, generational and trans-group relations.

In this paper, we investigate how – after major institutional changes in the management of fisheries – the bargaining power of different local actors affects the way each renegotiated the rules to gain a perceived fair share of fishery resources, which we argue is as a key element of constitutionality, which, in turn, contributes to more sustainable use of CPRs. As we elaborate, 'constitutionality' refers to an institution building process that includes but goes beyond local institutions to address power asymmetries at the local, regional, and national scales and yet nurtures a local sense of ownership in the institutions. The Zambian case reveals a participatory approach to crafting local institutions. It provided a strategic option for all actors, including those usually in weaker positions with restricted participation in political processes, notably uneducated women and autochthonous minorities. Participants with different levels of power realized that collective action that included marginalized actors from the local community was needed to address the serious malnutrition and food insecurity their communities were facing. The case study illustrates how local actors constituted a viable countervailing force against hegemonic development and conservation discourses. Understanding their strategies provides a window into the process of constitutionality, and thereafter a comparison with other cases enables us to further broaden the concept of 'constitutionality'.

Methods

The initial research was conducted in Nalubamba chiefdom, Namwala District Southern Province between 2002 and 2004 during two fieldwork periods totaling 12 months. Research included the chiefdoms of the Ila and Balundwe in Namwala Monze and Mazabuka Districts. Basic ethnographic research on the Ila and the autochthonous Batwa was also conducted, particularly on institutional change that governed access to CPRs such as pasture, wildlife and fisheries, and impacted their livelihoods and nutrition. A mixed method approach was used combining qualitative methods with quantitative tools (household questionnaires). This included an exploratory phase involving participant observation of a seasonal cycle of resource use activities in the Ila village where we lived (Haller and Merten 2010; Haller 2013), as well as open and structured interviews with

villagers and specific resource experts. In the household questionnaires we asked about household composition, assets, budgets, perception of change in CPRs, access and conflicts, and about food security, nutrition and child health to create a link between resource use and health (Merten and Haller 2008). We also collected oral histories and biographies and conducted focus group discussions in this and another six villages in Mbeza territory of the Nalubamba chiefdom, which consists of more than 40 villages, with a total population of over 20,000, and in selected villages in the adjacent Mungaila (Maala), Hamusonde (Bweengwa), Choongo, and Mwanachinwala chiefdoms (Map 1). The area is an extremely resource rich floodplain (the Kafue Flats) adjacent to mid-sized and larger cities, including the capital Lusaka. It is characterized by seasonal inundations that cover 3000–5000 km² in an otherwise semi-arid area and is home to a rich variety of fish (tilapia, bream, barbal, and others), as well as antelopes and other game species. Before we started field investigations, we conducted extensive literature and archive research. We revisited the area in 2005, 2006, 2008–2011 for several weeks and reassessed the by-law processes in the fisheries.

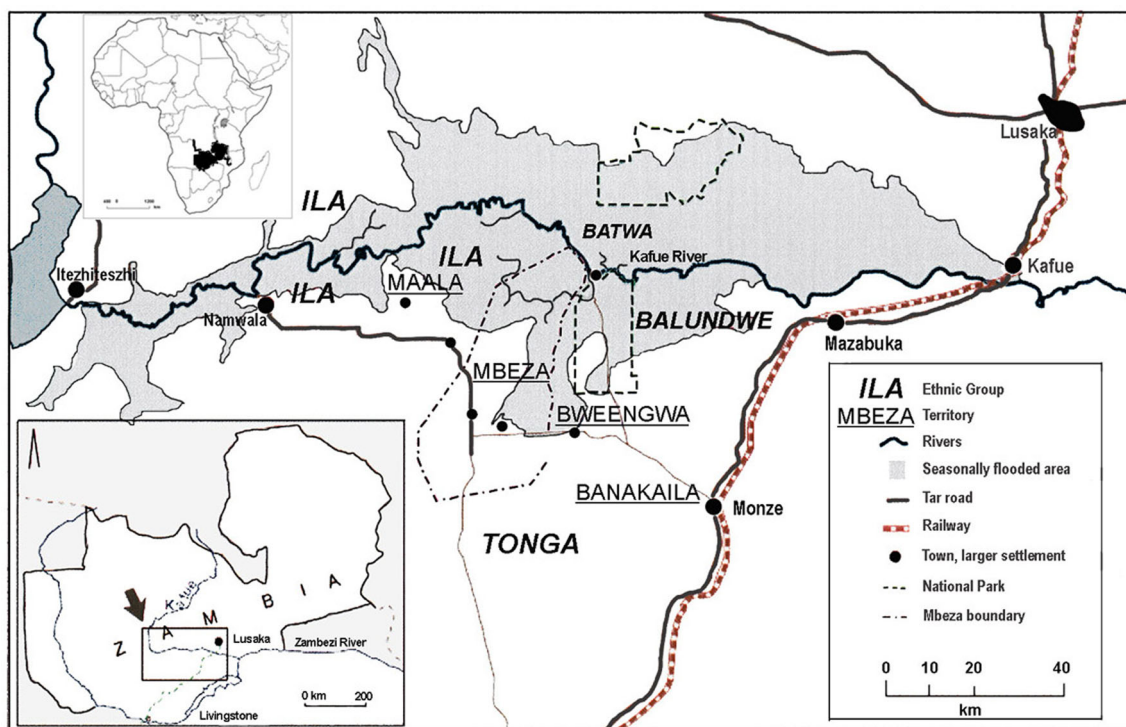
The first research period coincided with high tensions over land tenure and wildlife and fisheries issues during a hunger crisis. Moreover, political unrest in all of the chiefdoms in which fieldwork was conducted, as well as the Batwa area around the village of Nyimba, made data collection difficult. We also collected qualitative data in fishing villages on the

south bank of the Kafue Flats as well as in temporary fishing camps on the Kafue River and Chunga Lagoon close to Lochinvar National Park (see Haller 2013).

Results

Diminishing Resources

The literature review and initial field research conducted in 2002 to 2004 revealed conflicts over land, pasture, and wildlife, and showed that the governance of the fisheries was largely ineffective and the fisheries were in crisis. Official data on catches were inconsistent due to lack of steady funding for the Department of Fisheries (DoF) to support monitoring, and local estimates were not deemed worthy to be included in official reports. But the general local view was that residents' access to fish was extremely limited, and local DoF staff also suspected catches were in fact much lower than official figures suggested. According to our analysis, access to fish changed from being treated as a common property to state property, allowing many new non-local fishers access to the resource and thus jeopardizing local food systems. This institutional change led to the erosion of local fishery management while the government institutions that replaced them were dysfunctional because of lack of state financial support for monitoring and sanctioning. This double loss of institutional support (for local as well as state institutions) led to a de facto open-access



Map 1 The Kafue Flats and local ethnic groups (by C. Furrer based on map of S. Merten)

situation from which mainly commercial fishermen and fish traders profited extensively, while local households lost access to fish, especially as fish stocks declined and catches were sold in urban markets (Haller 2013; Haller and Merten 2008, 2010). Other CPRs also became de facto open access – allowing more powerful actors to profit and negatively affecting the livelihoods of local Ila, Balundwe and Batwa.

The changes were part of broader, more general political, economic, and institutional transformations in the Kafue Flats that led to resources and values becoming highly contested in irrigation agriculture, conservation efforts, and hydropower production and ultimately to the food crisis. Conflicts were particularly acute over land as pasture was moved into irrigation agriculture, but many also arose from the state's conservation policies that excluded local villagers from using their former pasture and fishing grounds, which were now protected areas where traditional agriculture and fisheries were banned. People already very angry about these restrictions were further enraged, especially during the food crisis, when they realized that their former resources were being usurped by powerful outsiders.

The new crisis harkened back to colonial era when the more powerful external agents were colonial and later post-colonial state officials. In pre-colonial times, fisheries were a major CPR that attracted the Ila to migrate to the Kafue Flats in the eighteenth century and intermarry with indigenous Batwa fishermen and hunters. As well as the fisheries, the Ila utilized about 5000 km² of the rich grazing grounds through locally regulated fallow periods after the area was flooded during and after the rainy season.

The indigenous Batwa, relying mostly on fishing and hunting, faced exploitation of their resources by outsiders who fished for the emerging urban markets even during colonial times, while the Ila and Balundwe agro-pastoralists continued to be quite wealthy in spite of losing ownership of resources to the state. In the mid-1970s, the Zambian economy was hard hit by decreasing world prices for metals, especially copper. Mines were closed, miners lost their jobs and many other sectors in urban areas declined (Ferguson 1999). Increasing numbers of Zambian citizens moved into the fisheries to compensate for job losses in towns. In the rural hinterland, which growing infrastructure in form of roads and dams for hydropower made more accessible, these newcomers were competing with local food production systems. The dam in particular also changed the flooding patterns, impacting negatively the reproductive cycles of fish and wildlife and reducing pasture areas. All four strategies of the Ila livelihood system (cattle, agriculture, wildlife and fisheries) became increasingly challenged; agriculture suffered particularly from low yields some years later due to a combination of lack of inputs related to the state financial crisis and droughts at the end of the 1990s and early 2000s. Local livelihoods, especially for the more

marginal households, and the Batwa as a whole were left highly vulnerable. Our research between 2002 and 2008 indicated fish catch declined between by 50% and 75% from the mid-1970s in relation to previous resource availability (Haller 2013; Haller and Merten 2010).

Institutional Change in Common Pool Resource Management in the Fisheries

Although the Ila are considered agro-pastoralists, fishing has been one of their major sources of protein. It was also the most regulated source of protein and thus fisheries institutions were well adapted to seasonal flooding cycles (Haller 2010, 2013; Haller and Merten 2008). The Ila had neither a centralized nor a purely segmentary form of socio-political organization, but were governed by *big men (mwami)* who functioned like political elite leaders (see Sahlins 1963), attracting followers, establishing defined resource areas, and giving out access to CPRs managed as common property, including land, pasture and hunting rights to which all members had designated access. Although the big men were in competition, they cooperated on reciprocal access arrangements to CPRs. Thus, members of one group could be invited for collective fishing or hunting events overseen by the big men of another. Big men were perceived to be local resource managers, a status they claim to have received from ancestral spirits. Big men were expected to manage resources on behalf of their followers under the guidance of spiritual masters (*utamba*), who were responsible for ritual interaction with ancestral spirits (performing an appeasing ritual called *kupa ila* before collective fishing events); they organized, monitored and enforced rules for resource use (Haller 2013; Haller and Merten 2008, 2010).

During high floods, fisheries were traditionally an open access but as the water retreated the remaining small ponds or lagoons became regulated common property. Collective fishing in ponds was organized in a coordinated pattern under the control of the *utamba*, who first performed a ritual appeasing the ancestral spirits. This institutional framework worked well to preserve local fishing resources, even though it apparent function was to further the prestige of local big men rather than sustainable use of resources (Haller and Merten 2008).

Major changes of this institutional framework occurred in two separate processes: first, during colonial times local big men were replaced by chiefs loyal to the government for tax enforcement. These government-designated chiefdoms are strongly resented even today by those outside the chief's clan, who were previously in power, a circumstance constituting one of the many political cleavages within Ila groups in the respective chiefdoms. Actors from the clans of former big men use the notion of indigeneity to undermine the legitimacy of current local chiefs in order to pursue their own political and economic interests. Secondly, both the colonial and post-

colonial states transformed the fisheries (as well as wildlife and land) from a common property to state property, subject to state laws since the 1950s with a major revision 1974 and amendments in the 1990s including regulations for fishing licenses, minimal mesh sizes, and bans of several technologies (see Haller and Merten 2008, 2010; Haller 2013). Resources that were related in previous traditional resource management systems were fragmented by a state management system (Haller 2013; Mhlanga *et al.* 2014). Although chiefs would still distribute land, fish and wildlife became resources owned by the colonial and subsequently the national government. Colonial policies directed at providing the cities and the mining towns with protein sources attracted outsiders to move to the Kafue Flats, putting pressure on the indigenous Batwa and later also the Ila.

After commercial fishing activities became too intensive in the late 1950s, the government intervened and crafted a series of national laws for the fisheries, sidelining local regulations, but focusing only on gear and zoning as well as licensing and permits. As the state lost its main income in the mid-1970s after copper prices crashed, it lacked financial revenues to enforce its regulations and fund its institutions. As a consequence, state governance was severely undermined. While the local institutions for the fishery management were no longer working, the state institutions were severely compromised by the financial crisis. As state governance weakened, more and more seasonal immigrants, who had lost their jobs in the cities and in the mines, moved to the Kafue Flats to find new livelihoods in commercial fisheries and the fish trade, especially because relatively, fisheries prices were much higher than for agricultural goods or services (wage labor).

In the 1980s, the Kafue Flats were still richer in resources than other parts of the country, especially in the middle section of the floodplain, although resources were already highly reduced in the east and west. Local headmen and chiefs were helpless to react or were partially happy to attract more outsiders to boost their power. Ultimately, these immigrants gained exclusive access by making use of the discourse that as citizens they were entitled to access national resources and fish were a state resource for which they paid a license. At the same time, the state was not present to monitor and sanction illegal actions, including large nets with very small mesh sizes and violation of closing dates for fisheries in February. This situation exemplifies the paradox termed the “present-absence” of the state (Haller 2013; Haller and Merten 2008; Haller and Merten 2010).

By 2002, fishing occurred all year round with very finely meshed nets and no attention was being paid to fish breeding seasons and grounds. Several sources challenged the DoF data that indicated a “stable catch” of 6000 MT per year since the 1990s. According to local informants, several fish species (e.g., an endemic bream species) had already not been present for a number of years (see Haller and Merten 2008; Haller

2013). Further, local Ila residents increasingly viewed violations of collective fishing rules as a problem among their own young men as well as the seasonal immigrants and traders, and were troubled that women were trying to engage in the “business” of selling sex for fish in the commercial fishing camps (Béné and Merten 2008; Merten and Haller 2007).

Crafting Institutions: the Initial Story of the Project (All 2002)

The pressure on the fisheries motivated some local residents to call for more collective action to improve management. During our research, they complained that all the fish were taken particularly (but not only) by outsiders. Residents from the fishing villages soon contested the relevance of our research, questioning what they would gain now that we had collected data on their concerns and priorities. At the same time, our local research assistants complained that our research revealed problems but did not provide solutions. All wanted to use the information gained through their involvement in the project to change this situation. Coincidentally, we had been in contact with local fishery officers, few of them native to the area, in the city of Mazabuka, who had told us about a participatory project they had initiated in fishing camps. Given the lack of funding for monitoring and enforcement by the state, they had set up committees in some fishing camps close to Mazabuka in the Mwanachingwala chiefdom whose members would help them monitor the fisheries and implement sanctions. In addition they aimed to discuss with the committees local by-laws to supplement the state’s fishery laws.

Thus, we suggested that local interest groups contact the Department of Fisheries (DoF) in order to investigate the possibilities of developing local fishing committees in Mbeza. We provided transport to enable first meetings between local residents and fishery officers in Balundwe and Ila chiefdoms. We were later able to arrange a meeting between local residents in Hamusonde chiefdom and fishery officers. At this meeting, which village headmen as well as female representatives attended, a local fishery officer from Monze District declared that local people should be educated to fish in a sustainable way – in his words to “wait until the fish is big.” This provoked anger among the audience since they asserted that it was not lack of local knowledge about the fisheries, but the fact that the DoF gave commercial fishermen and outside traders unlimited access to the fishing grounds that caused problems such as reduced catches and small size of some species, while local people were not entitled to stop this overuse. One headman angrily interrupted:

“Where were you when we called you? We have problems in this chiefdom in the fishing camps! We called you but you never showed up when these outsiders used forbidden methods or fished during closed seasons!”

It became clear to those at the meeting that they needed another way of dealing with the problem and they were eager to act. We offered to provide transport and to facilitate the drafting of by-laws, involving the local DoF (especially from Mazabuka District), who had experience in the crafting of two by-laws (Haller 2013).

However, there were political and gender-specific cleavages in the Ila and Balundwe communities that would have to be addressed to ensure broad participation in the by-law development process. For example, since the death of the chief, no replacement had been chosen from his family, and an “acting chief” had been appointed. He faced considerable opposition because his position did not stem from a previous local big man, but from the colonial government’s appointee. We also saw the need to give the sedentary fishing villages of the Lozi, an outsider ethnic group, the opportunity to provide their input on how to manage the fisheries. Furthermore, we knew from our research that women felt excluded from the management of the commercial fisheries, even though poor families especially depended on women’s catches in the tributaries during the rainy season before the harvest. It appeared unlikely that the local formal representatives, i.e., the “acting chief” and his followers, would actively involve women and other politically marginalized stakeholders as equal partners in the process. Stakeholder groups fell into five categories: women and men from local communities who fished mainly in the tributaries, commercial fishermen, and male and female fish traders. We therefore approached the different interest groups separately with the option of discussions among themselves on strategies to resolve the problems they faced in relation to the fisheries. Drawing upon the fishery by-laws examples from Mazabuka, these stakeholder groups were asked to define the content of the by-laws they would like to see. After the initial briefing, a joint meeting was organized where the draft by-laws of each interest group would be collected and discussed in presence of the local fisheries officers. Our local research assistants ensured that the diverse groups felt secure and comfortable in their discussions. In the joint meeting it was again ensured through effective moderation that all interest groups could equally present their priorities. This structured process was important because it reduced power asymmetries in the discussions, which would have diminished the possibility of equal participation of members of these groups, while at the same time raising awareness of problems that some stakeholder groups had previously been unaware of.

Also important for the process, the moderator gave no prescription to the groups as to what form by-laws should take or what areas they should cover. In this way a political debate was generated that allowed the different groups of stakeholders in the local communities to express their views,

priorities, and approaches to solutions to a common problem. Based on the written contributions of each group a common by-laws draft was developed in Hamusonde chiefdom in which all participating interest groups had a sense of ownership (Chabwela and Haller 2010; Haller 2013).

Content of the by-Laws: Key Themes Raised by the Local Groups

In the first site, the Hamusonde area, the first by-laws draft was developed over the course of about three weeks and subsequently discussed in a series of meetings between the groups. In all other chiefdoms of the Ila and the Balundwe as well as the Batwa the participating interest groups came up with different by-law proposals as well. Overall the discussions and the meeting phase took two and a half years.

Importantly, the by-laws not only incorporated technical and governance aspects of fisheries, but contained regulations to facilitate enforcement of rules relating to concerns such as the maintenance of law and order in the fishing camps, e.g., as compulsory registration with the headman; control of ‘subsistence fishing’ in the tributaries during closed seasons in winter, which coincide with the annual food shortages prior to the next harvest; and the fish trade, with specific attention to sexual transactions between fishermen and female fish traders. Lastly, health and sanitation regulations to avoid the spread of infectious diseases such as cholera and sexually transmitted diseases such as HIV were raised as priorities. Thus it became clear that the local communities had a broad, inclusive approach to management of resources that impacted them in their everyday lives.

All participants agreed in principle that regulation of fishing techniques was needed. Interestingly, proposed regulations covered not only new techniques, such as extremely fine meshed shed cloth, mosquito nets (used as draw nets), and small meshed nets with beating sticks, but also traditional techniques (baskets). These latter were not to be banned completely, however, as statutory law stated:

- *Fishing with traditional baskets shall be allowed only if for subsistence. Action against this rule will lead to a penalty*

One major aspect of the by-laws addressed the empowerment of the respective river monitor in an area (*utamba*), who would control fishing in the tributaries during specific times, depending on the size and quantity of fish. The initial rule was formulated to include traditional closing seasons:

- *Traditional as well as official closing seasons for the fisheries must be respected, e.g. traditional fishing rules regulating the access to ponds and oxbow lakes in the territory.*

Another key concern of all groups was fishing during the traditional closing season. Traditional regulations had been more suited to women's subsistence needs. For example, women used to have a share of the river where they would fish with baskets, a technique usually not used by men. However, men increasingly fished in the women's sections and also used baskets. In addition, men disrespected opening times set by the monitor, with the effect that on the opening day, most of the fish had already been caught and sold to traders from town. Another pertinent issue was that the closing season coincided with the 'hunger period,' when fish was an important source of protein especially for poorer households and could at times be used to barter for maize. To protect poorer people's livelihoods according to local views, fishing in the tributaries during official closing times should therefore be explicitly allowed, but for residents of the area only:

- *As an exception, residents of Bweengwa shall be allowed in the closed season between December and end of February to fish in the tributaries of the Kafue River, e.g. women with traditional baskets. This fishing shall be done for subsistence only. Any person who is found to sell fish to non-Bweengwa residents during this period shall be fined*

In order to implement such rules, a functional governance structure was needed in the villages. The form it would take or even its necessity were not always agreed upon, and presented problem especially in the seasonal fishing camps, which at times attracted hundreds of fishermen and others who benefitted from the emerging marketplace. In the by-law drafts, various issues pertaining to behavior in the camps or in the chiefdoms were addressed: the use of alcohol, abusive language, fighting and quarrelling were prohibited, and measures were called for to solve problems of health and sanitation in the camps, which had been plagued by repeated cholera outbreaks over many years. In Bweengwa, for example, this included:

- *Fishing Camps: Fishing camps are administered by the Hon. Chief, Village Headmen, Chairmen, and Security Committees, including Chief's Retainers.*
- *Only people of clean identity and businesses are authorized to stay in fishing camps.*
- *Nobody should build any shelter or business stand without the authority of the Village Headmen, Security Committee and the Chairmen.*
- *No abusive language, fighting and quarrelling or committing nuisances in public are allowed.*
- *Suspicious characters should immediately be reported to Zambian Police in Monze.*
- *Troublesome characters should be removed completely from the plain camp/plain.*

And:

High standards of cleanliness in camps should be strictly observed. People are asked to provide for security, hygiene controls and health facilities in order to prevent the spread of infectious diseases (such as e.g. cholera, dysentery, or STIs like HIV/AIDS, syphilis, and gonorrhoea). Adequate measures have to be taken according to the size of the fishing camp (health post, distribution of condoms, pit latrines, garbage collection, etc.).

In other fish trading areas transactional sex between fishermen and female fish traders had led to great concerns about the spread of HIV. Permanently settled male and female fishers, commonly expressed concerns about disturbances of their marriages through sexual transactions and fears of HIV, thus:

No fish trader, fisherman or cattle herder is allowed to disturb a married couple by engaging him or herself in love to a married person. Anyone found shall be guilty of an offence of adultery and shall compensate the complainant.

In addition, there were many concerns about sexual violence against women in the camps. Although an offence, rape was explicitly addressed in the local by-laws:

- *Rape is not allowed in Nakasale, any one found committing that shall be charged (and it can be a police case).*
- *Defilement in camp is not allowed. Anyone found committing this case shall be forced to compensate (and it can be a police case).*

These three rules addressed problems associated with seasonal immigration: the influx of men often having large sums of cash in a context of extreme poverty particularly impacted women, especially those from poorer families. Immigrant men used the ideology of modernity to depict local men as unable to provide for their families and to undermine sexual, dietary, religious and behavioral local norms, such as the post-partum abstinence taboo, as backward (Haller and Merten 2013). The fishery by-laws became a type of weapon to resist these new developments and for local actors to define the norms they wish to control and govern themselves with the support of the state. As the problem included minority and ethnic issues, they were addressed in a general but effective way that also included behaviors among members of the same ethnic group.

The Implementation Process (2004–2011)

In 2004 we were contacted by the director of the World Fish Centre who announced his intention to finance a low budget

project, called *Co-Managing the Fisheries in the Kafue Flats* that included the collaboration of local Department of Fisheries staff, our research group and research assistants, and several local representatives between 2004 and 2006. The aim was to draft by-laws as a local constitutional counterpart to already existing national fishery laws.

It became particularly obvious that first, as in the case of Hamusonde chiefdom and based on our research in Nalubamba chiefdom, it was necessary to understand and address local¹ power relations and factions, including attention to power dynamics among localized groups, and second, there is consistent opposition from local stakeholders to local chiefs because of their association with colonial history.

We then further identified two major areas of interest group categories:

- A) Villages of four Ila chiefdoms with three separate interest groups: groups living on a tributary to the Kafue River, women fishing with baskets, and representatives of chiefs.
- B) Fishing villages and temporary fishing camps in the floodplain also with three separate groups: commercial fishermen, male fish traders and female fish traders.

Our previous experience of drafting by-laws provided a baseline for the co-management project. First contacts were made in 2004 and in 2005–6 several volunteers from Switzerland assisted local research assistants to extend and adapt the process elsewhere. In all the chiefdoms on the southern side of the Kafue Flats (Namwala, Maala, Mbeza) the same process used in Hamusonde was repeated and led to similar results. In 2005 a meeting was organized in Mazabuka to combine all the by-laws and examine their similarities and differences. Representatives from all the areas attended the meeting and agreed to implement the by-laws. It was very important that all the regions were involved and that none of the interest groups, especially the chiefs, could dominate the content of the by-laws. The project thus achieved an important process of devolution of power, as well as recognition by the Ministry of Fisheries and Ministry of Health.

In preparation for local level meetings, a meeting was arranged between high-level staff of the DoF and local DoF officials and representatives of the local communities. While the Director of DoF appeared informed about and expressed interest in the project, his staff were apparently not informed and raised questions as to the propriety of local DoF officials becoming independently engaged in a project with an INGO associated with the World Bank. Having been told that the

higher-level administrators had been briefed on the project, we took responsibility for this serious misunderstanding. It took many discussions to mitigate the tensions that arose in the aftermath of this incident.

In light of the above, we should have anticipated that in some of the local level meetings government officials treated local representatives without respect. They commented on points they saw as conflicting with statutory law, for example the by-law that the closing season should not apply for subsistence fishing, even though this was obviously a matter of interpretation of the law and not a fundamental disagreement. On several occasions the local representatives were clearly extremely upset and frustrated. In addition, the INGO failed to formally get approval for the by-laws on behalf of the local communities. This led to only partial implementation of the by-laws in the fishing villages, as some immigrant fishermen openly challenged them.

However, coincidentally, Zambia had started to implement a more decentralized governance structure, giving local chiefs much more autonomy. The chiefs were therefore becoming very interested in the local by-laws, as the bottom-up process had the potential to reinforce their power. Several years after the initial by-laws had been written and implemented, some of the local chiefs encouraged compliance with the by-laws as these had a great legitimacy as being supported by many different local interest groups. This led to enormous changes. Whereas previously, fishing camps were at times chaotic, uncontrolled and unsafe places, we observed one of the largest fishing camps transformed into an organized and reasonably safe trading place. All arriving traders or fishermen had to register with the headman; all traders had to sleep in a large structure and were not allowed in the village after dark. Alcohol consumption was limited to a few places and not allowed in the open; any interpersonal violence was reported to the headman who called either the chief or the police on several occasions. How fish catches had been affected was difficult to assess. However, according to some local informants, caught fish were larger, some sub-species thought to be extinct showed up again and shares were now more equally distributed. Traders were ranked according to the date they registered, giving everyone a similar chance to buy fish, and largely preventing the formerly common fish-for-sex exchange.

Another noteworthy development is that so many health issues were addressed in the by-laws that the INGO has started to develop an HIV-prevention project, as well as becoming involved in water and sanitation issues.

Discussion and Conclusions

This case study illustrates how the process we call constitutionality has facilitated the cooperation of heterogeneous (local) actors on fisheries management – including the social, economic, and health impacts. It is clear that the provision of a platform and framework allowing all stakeholder groups to discuss among

¹ The notion of ‘local’ is complex, referring as it does not just to members of an ethnic group but also to people engaged in a place and stable social relations over time. This included, e.g., Lozi fishermen in permanent camps, who had migrated to the area decades ago.

themselves fisheries management was crucial to this process. It was evident to local residents that local officials of the DoF, as well as the researchers, had no hidden agenda. However, the long-term results remain unclear: while local interest groups emphasize that outside fishermen now tend to avoid the area or modify their fishing gear if they enter, the by-laws have not yet been ratified on the district level, a circumstance that might erode their eventual effectiveness in the future (Chabwela and Haller 2010; Haller and Merten 2008; Haller 2013).

Nevertheless, we suggest this process gave stakeholders a sense of ownership of the institution building process and later its implementation. In this context and related to the debate on the state's involvement in the crafting of new institutions, we realized that we played an important role as facilitators by providing transport and moderating meetings. However this was neither what Foucault meant by 'governmentality' (incorporation of state law and control by the state) nor did it correspond to Agrawal's 'environmentality' (incorporation of the state's environmental regulations), but a conscious and strategic crafting of regulations via a more bottom-up process. These regulations were based on local knowledge and experiences of problems and incorporated all interest groups by enabling constituents to participate on an equal basis, so that groups representing the interests of chiefs were just one among many others, while different women's groups too were able to discuss how they perceived the problem with the fisheries without the presence of men. The ideas that emerged were pooled and discussed at larger meetings to produce common by-laws for the respective chiefdoms that included most of the ideas developed in the preliminary discussions.

Six elements emerged as necessary for the process of constitutionality (Haller *et al.* 2016): i) emic perception of factors creating need for new institutions, ii) participatory processes addressing power asymmetries giving a sense of ownership in the institution building, iii) pre-existing institutions to build on, iv) outside catalyzing agents (a platform where interaction is perceived to be fair in the sense that no powerful actor can override others), v) recognition of local knowledge of resources, creativity, and social learning addressing new problems, and vi) higher level recognition, support and subsidy vs. elite capture (Ostrom's eight design principles (1990, 2005)). In the case of the Kafue Flats fisheries at least five of the six factors were present:

i) The challenges of the situation in the fisheries were generally recognized, not just the issue of reduced catches, but also that at times of food crisis access to formerly abundant fish was no longer possible as a consequence of a combination of reduced stocks and commercial catches being sold exclusively in urban markets. Despite the fact that people realized the fisheries had become officially a state resource, they still perceived them as a resource linked to their locality and central for their livelihood resilience. The hunger crisis

of 2002–3 highlighted this lack of access and the necessity for new rules.

- ii) In light of local perceptions of several failed attempts of public participation in the area as top-down initiatives and participatory only from the state and NGO perspective (Chabwela and Haller 2010; Haller 2013; see also Carlsson and Berkes 2005; Cook and Kothari 2001; Ribot 2012), all the actors engaged in the process supported the attempt to include local perspectives in discussions. As stakeholder groups were able to forge discussions among themselves and saw their issues taken seriously in the crafting of by-laws, everyone developed a sense of ownership of the new rules and in this way challenged local asymmetric power relations (e.g., the power of men and chiefs).
- iii) Pre-colonial collective fishing institutions, such as the ritual master (*utamba*) performing the *kupa ila* ritual (which served as a coordination and sanctioning mechanism), monitoring of the fisheries by local ritual master and youth, sanctioning of e.g., closing seasons by big men (*mwami*), gender separated technology, and reciprocal access arrangements between neighboring groups, served as an example for sound and fair access to the fisheries (Ferguson 2015) and a focal point of reference for new institution building as well as gender sensitive technical by-laws based on local knowledge (see also Berkes 1999).
- iv) To address asymmetries of bargaining power, which created erosion of trust among community members, together with local DoF staff and based on our research we created a locally recognized platform to allow stakeholder groups the option to discuss their views separately without being forced to interact with more powerful players that enabled them to draft their own rules in the by-law process. This was central in the process of constitutionality.
- v) Local knowledge of fish - seasonal availability as well as breeding patterns and mobility - not considered in official initiatives, served in this process as a basis for rule making. A key point was that subsistence fishing with local technologies is allowed during closing seasons but not in breeding places. Although it became clear that local knowledge or traditional practices could not address new problems, notably health and gender relations, associated with commercial fisheries and fish trade, the stakeholder groups drafting the by-laws came up with creative and innovative solutions, including new elements of management and rules that better fit the new challenges, but which are located in the health and sanitation sector, addressing other state organizations and institutions.
- vi) Only the last variable dealing with local rules being incorporated in a larger system of regulations failed, as the by-laws were not ratified either on the district level or higher, such as the Southern Province and the

State of Zambia. Therefore the robustness of these new institutions remains unclear and is vulnerable, and dependent again on leading local political actors. The central issue here is that a state respecting local-institution building is needed to legitimate and enforce locally developed by-laws.

Nevertheless, we argue that this case provides a basis for the constitutionality approach as well as further insights in three additional areas: first, rather than the usual top-down development of state controlled institutions of common pool resources governance, in this case regulations were crafted bottom-up in order to address problems stemming from government regulation of fisheries. Second, the process was successful because it addressed local bargaining power asymmetries: Women were strengthened in their bargaining power relative to men. Women's groups also produced their own by-laws addressing their concerns separately from men. Another issue was the challenge of the bargaining power of local chiefs and outside resource users. Third, it raises the importance of a) the incorporation of state actors into the process by assessing their particular interests, b) the principle of subsidy by which the state accepts and protects by-laws crafted at the local level, and c) reuniting what the state had fragmented in its resource governance: management of fisheries and water resources and the incorporation of socio-environmental as well as health issues (see Mhlanga *et al.* 2014). Local leaders and interest groups mobilized themselves precisely because they wanted to prevent balkanization of natural resource management, which hitherto they managed through rules of reciprocity granting access also to outsiders. Constitutionality, we argue, explains an approach toward a fair share in management of resources as well as addresses related socio-economic, political, and environmental challenges and thus contributes to a more sustainable use of resources.

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