

Menestrey Schwieger, D.A.; Kiaka, R.D. and Schnegg, M. 2022.
Water values and moral economic practices in Kunene, Namibia.
Water Alternatives 15(3): 614-630



Water Values and Moral Economic Practices in Kunene, Namibia

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ABSTRACT: In Namibia, the institutional framework for governing rural water infrastructure has changed profoundly over the last decades. Following a community-based water management (CBWM) strategy, post-independence policies transferred the responsibility for providing water from the state to local user groups. This turned water from a public good into a common good, and today all pastoral communities must collectively cover the costs of water. In this article, we explore the economic consequences of these developments in the Kunene region of north-western Namibia. Our analysis reveals that CBWM places a significant burden on all households but that, at the same time, the effects differ across the region. In the northern part of the research area the poor pay a high share, while in the south they find ways to resist. Our analysis reveals that 'moral economic practices' such as food sharing can account for those differences to a significant degree. Communities in the north are characterised by very strong reciprocal patron-client networks, which give the poor relatively little power to oppose pricing rules that are preferred by their wealthy neighbours. In the southern part of the Kunene region, by contrast, social networks are based on sharing norms and are much more egalitarian. Along with other factors, those differences help to explain why the poor in the north find it much more difficult to resist their wealthy neighbours than do the poor in the south. In the end, the actual price of water differs across the region as it intersects with different moral economic practices.

KEYWORDS: Pastoral communities, community-based water management, moral economic practices, institutional multiplexity, Kunene, Namibia

INTRODUCTION

In the pastoral communities of north-western Namibia, dependence on natural resources is high. Water is a limited resource in the arid environment and is amply available only during and shortly after the rainy season when it accumulates in ephemeral rivers and behind earth dams. For the rest of the year, pastoralists depend on pumping groundwater from boreholes to support households and herds. Those boreholes are fitted with different technologies, most importantly diesel engines. Over the last three decades, the institutional framework for governing this infrastructure has changed significantly. Until 1990, the colonial state was responsible for covering the costs of operating and maintaining communal water supplies. After independence, the first elected government introduced a set of water decentralisation policies that were inspired by the then-dominant development model of community-based natural resource management (CBNRM) (Jones and Weaver, 2009). This implied that the water

infrastructure in rural areas was 'handed over' – to use the government's words – to local user groups. The CBNRM approach was justified both scientifically and politically.

Scientifically, the pioneering work of Elinor Ostrom showed that privatisation and/or state administration are neither the only, nor the most effective and environmentally sustainable, ways to manage natural resources (Ostrom, 1990). She also empirically demonstrated that communities are able to manage natural resources successfully over long periods of time if certain conditions are met. Ostrom and others (Baland and Platteau, 1997; Wade, 1994) were able to identify concrete design principles that foster collective action and sustainable resource use. Even though Ostrom was cautious about the applicability of these design principles in crafting 'new' institutions, they were soon adopted by the development community, and in the 1990s and 2000s they became policy blueprints in many countries, including Namibia (Saunders, 2014; Schnegg and Linke, 2016).

Politically, neoliberalism was advancing, and powerful players including the International Monetary Fund and the World Bank urged governments to withdraw from direct investment in infrastructure (Craig and Porter, 2006). Their position was that, instead of the state, private financial capital and market mechanisms should step in. The withdrawal of the state was supported by the argument that people's livelihoods would improve once they could capitalise on resources that were previously beyond their control (Igoe and Brockington, 2007). In Namibia, community-based water management (CBWM), a form of CBNRM, was adopted in the mid-1990s. It turned the water supply, which had formerly been cost-free, from a public into a common, and eventually quasi-private, good (Republic of Namibia, Ministry of Agriculture, Water and Forestry, 2008; Heyns, 2005). With this reform, the post-independence government aimed to make rural water supply more efficient, empower previously marginalised communities, and expand water coverage in areas that had largely been neglected during colonialism (Falk et al., 2009). Today, all pastoral communities in the Kunene region of north-western Namibia must cover the cost of their water supply's basic operation and maintenance.

In this article, we explore the consequences those policies have had on rural economies in north-western Namibia. While the new policy placed an additional burden on all, its effects differ among communities and households. Our aim is to show that social structure and 'moral economic practices' – that is, the ongoing negotiation and practice of shared norms, values and understandings of morality with regard to the production and distribution of material objects such as food – play an important role in mediating the effects of CBNRM policies in general, and water decentralisation policies in particular. To that end, we contrast households across communities in north-western Namibia. Before we move to this comparison, however, a review of the conceptual framework is in order.

INSTITUTIONAL MULTIPLEXITY AND BARGAINING POWER

CBNRM is based in part on common-pool resource theory and thus on assumptions from rational choice thinking (Saunders, 2014; Cleaver, 2012). Rational choice theory typically views an actor's behaviour over time as a sequence of separable choices that are made in isolation from one another. Facing one decision, the actor weighs the pragmatic outcomes implied by various options and chooses accordingly (Bardhan and Ray, 2006; Ostrom, 1990; Coleman, 1990). In recent years, those assumptions have been challenged and developed. Most importantly, Frances Cleaver and others have successfully established 'critical institutionalism', which confronts common-property resource theory with its major anthropological flaws. Cleaver and others have noted in particular the lack of an appreciation of actors' social and cultural embeddedness (Cleaver and de Koning, 2015; Cleaver, 2012; Mosse, 2003; de la Torre-Castro, 2006; Cleaver, 2002; Hall et al., 2014; Schnegg and Linke, 2015). To pinpoint the embeddedness of institutional development, Cleaver proposed the concept of 'institutional bricolage', which refers to a process by which people consciously and unconsciously draw on existing social and cultural arrangements to shape institutions.

In a series of papers, we have shown that institutional multiplexity can serve as a conceptual tool for empirically exploring those overlaps (Schneegg, 2018; Schneegg and Bollig, 2016; Schneegg, 2016b; Schneegg et al., 2016). Institutional multiplexity describes the degree to which resource-based transactions, like sharing water, are embedded in other types of network ties (for example, sharing food, labour and ancestries). Since distinct sharing ties often imply distinct rules, institutional multiplexity captures the number of institutions that structure the interaction between any two people. The more institutionally multiplex a social tie is, the more difficult it is to isolate a particular transaction, that is, to interact as if one only shared water, land, or any other single good. Institutional multiplexity is typically high when people live in small face-to-face communities and when their livelihoods depend on sharing multiple resources. These economic activities are often framed by a moral structure with collective values of subsistence rights, redistribution, reciprocity, and interdependence. Below, we elaborate on what is meant by moral economic practices, drawing on the anthropologist Karl Polanyi and his substantivist view of the economy and its embeddedness in social relationships and complex arrays of norms and values (Polanyi, 1957; Stanfield, 1989).

Against this background, institutional multiplexity has four important social consequences (Schneegg, 2018):

- (1) Organisational and institutional structures built around one domain are utilised to govern further domains, for example, church groups govern water (Cleaver, 2012);
- (2) Principles that generally apply to sharing, such as reciprocity and non-excludability, are considered to be building blocks when new institutions are formed;
- (3) Rules for sharing one resource are utilised to enforce something else; for example, access to water is denied in order to restrict access to pastures;
- (4) The multiplexity of network ties restricts the agency of individuals to enforce specific rules while at the same time opening up other mechanisms for social control.

The second and fourth aspects are salient for the argument we develop here because they can restrict the power of poorer households to resist their wealthy kith and kin. While the dependency restricts the agency of some, other factors increase their bargaining power in determining the actual price of water.

Knight has argued that the bargaining power of an actor is a function of how much they have to lose in a specific situation (Knight and Sened, 1995; Knight, 1992). If an actor is likely to lose a lot, and this is known, their bargaining power is low; however, if they have little or nothing to lose, they can engage much more forcibly. In the cases we analyse, the bargaining power of poor herders vis-à-vis the wealthy varies depending on the nature of the relationships and social institutions in which they are embedded. While for some poor herders, it is relatively easy to withdraw from paying for the water point and/or resist an unfair distribution of costs, for others this is very difficult or even impossible.

To account for these dynamics at the microlevel, we use the concepts of institutional multiplexity and bargaining power as theoretical guides to analyse how the new water policies affect household economies and people's lives.

METHODS AND DATA

The data utilised to address these questions was collected within the framework of a long-term (2010-2019) research project (LINGS) in the Kunene region, in the north-western part of Namibia. The team comprised eight anthropologists (Bollig, Kiaka, Kathrin Gradt, Thekla Kelbert, Linke, Menestrey Schwieger, Elsemi Olwage and Schneegg). The two principal investigators, Schneegg and Bollig, who were responsible for the overall design and the comparative analysis of the data, have conducted ethnographic fieldwork in the region since 1994 (Bollig) and 2003 (Schneegg). In the first phase of fieldwork, three anthropologists (Gradt, Linke and Menestrey Schwieger) stayed for roughly one year in the southern (Fransfontein) and northern (Otwani, Okangwati) parts of the research area to gain an in-depth

understanding of the process of negotiating and crafting new institutions in the form of daily routines (Linke, 2017; Menestrey Schwieger, 2015, 2017). From 2014, three anthropologists continued their work in the same communities (Kiaka, Olwage and Menestrey Schwieger). Since the communities are small (between 8 and 17 households), we were able to investigate the social life of water in 7 communities in detail. For the purposes of this paper, however, we focus on the data collected by Kiaka and Menestrey Schwieger.

From October 2014 to January 2016, Richard Kiaka conducted ethnographic fieldwork in two areas (Fransfontein and the ǀKhoadi ǁHôas conservancy) in southern Kunene (Figure 1). In our analysis, the research sites share many characteristics and are treated as one case, that is, southern Kunene. Daily life in neighbouring communities allowed Kiaka to observe, interact with his informants, and experience the social system that underpins the moral economic practices in the area. To gain an understanding of the socio-economic stratification of the communities, focus group discussions were conducted. Participants included about 10 adult men and women per session, with 9 sessions in total. Livelihood strategies and water management issues were the main conversation topics. In addition, a monthly household survey was conducted for 10 months, between February 2015 and January 2016, to collect data on household expenditure on water across the different wealth categories.

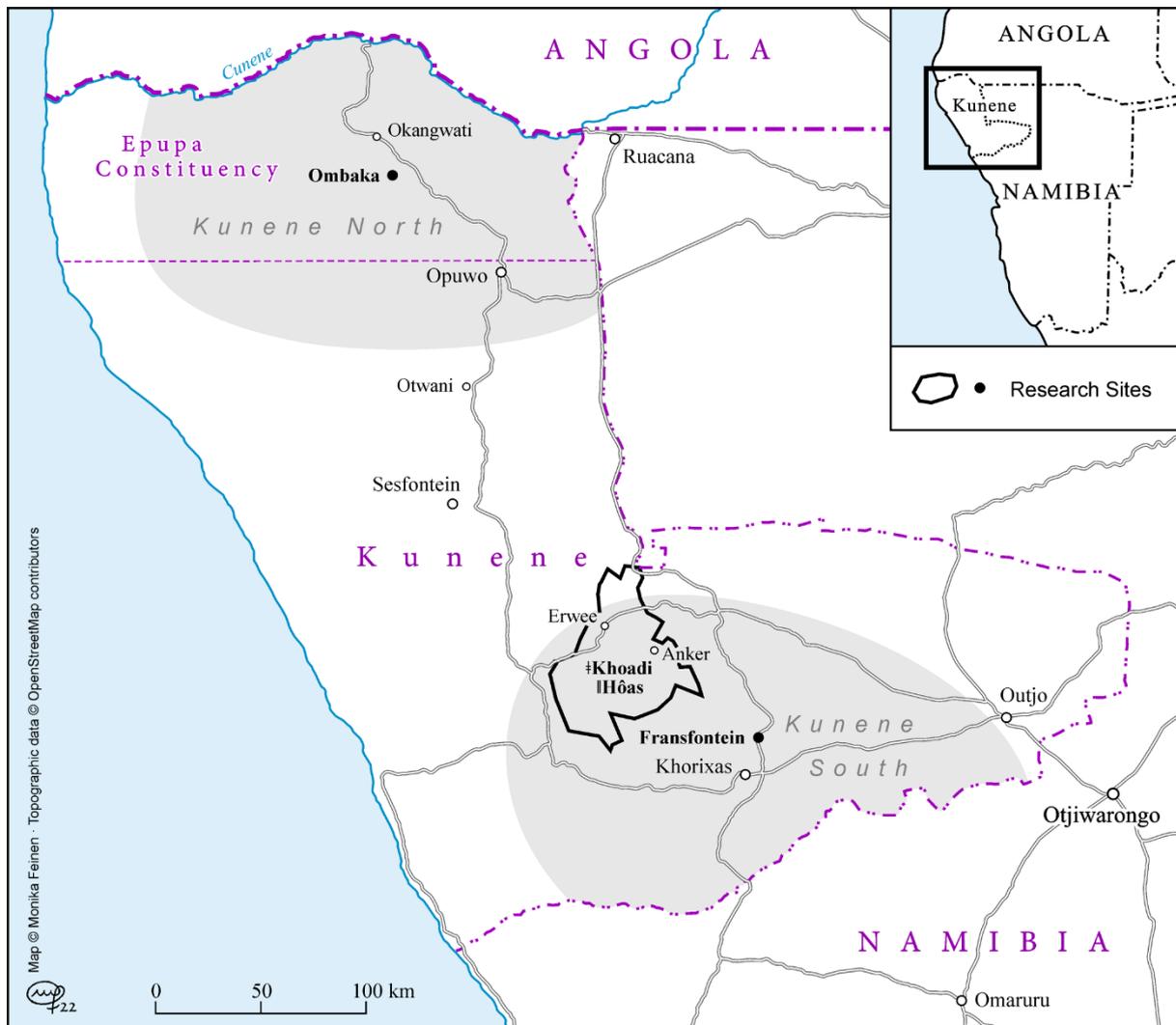
The data for northern Kunene was collected by Diego Menestrey Schwieger, mostly between 2010 and 2011. Since then, he has continued to visit the area for shorter periods to keep track of the institutional dynamics. The community he studies ethnographically, Ombaka, is located about 40 km southeast of Okangwati (Figure 1). The village consists of 13 households (about 280 inhabitants), all of whom consider themselves to be Himba. Data was collected through participant observation, a household and a social network survey, and through numerous semi-structured interviews and informal conversations with key informants that covered a wide range of topics related to peoples' livelihoods and water management issues. In both southern and northern Kunene, pastoralism is the dominant livelihood strategy.

LIVING PASTORALISM

Pastoral livelihoods in Namibia are constrained by low and unpredictable precipitation (Schneegg and Bollig, 2016; Bollig, 2006; Schneegg, 2019). Annual rainfall increases from west to east and most rainfall occurs in summer, between November and April. Under these ecological constraints, very large pastures are required for keeping livestock (Burke, 2004). According to the 2011 housing census, the rate of urbanisation is below 10% and most inhabitants depend on rural livelihoods (Republic of Namibia, Central Bureau of Statistics, 2012). Figure 1 shows the research sites in north-western Namibia.

The communal settlements in southern Kunene, located near Fransfontein as well as in ǀKhoadi ǁHôas, are inhabited by members of various ethnic groups, mostly Damara but also Nama and Herero. Under South African colonial rule, the area was part of Damaraland, one of the so-called homelands introduced across the country during the apartheid system that was put in place in the 1960s (Sullivan and Ganuses, 2020). Settlements are clustered around communal water points, while the remaining commonage is largely used for grazing. The settlements are usually small in size, with between 8 and 17 households, and population density is higher than in northern Kunene. Elderly people and children not yet in school constitute the major part of the population, while middle-aged people work in towns and older children stay in boarding schools; in addition, workers – who are often migrants from other areas of Namibia – live in the rural hinterlands. Even with this strong integration into the labour market, pastoralism remains a dominant economic activity and shapes daily life in all communities in southern Kunene.

Figure 1. Research sites in north-western Namibia.



Source: OpenStreetMap (2022); Monika Feinen (cartographer).

Households in Fransfontein possess, on average, 26.4 cattle (std. 35.2; min = 0; max = 155) and 59.0 small stock (std. 60.9; min = 0; max = 256). In †Khoadi ||Hôas, household livestock holdings are lower, averaging 20 cattle (std. 37; max = 200) and 26 small stock (std. 46; max = 312). In contrast to many pastoral societies, elders, including women, are responsible for the livestock. In all research communities, cattle graze throughout the night and return to the homestead around midmorning, whereas small stock is herded in the day and returned to the homestead each evening. Settlements are thus relatively permanent. Livestock rearing continues to be a dominant economic activity and is especially important as a store of wealth; the number of livestock owned by a household is also closely correlated with the amount of water it uses. Despite its importance, livestock rearing only marginally supports the daily survival of households, including the cost of water. Households must thus also rely on diverse economic strategies to make a living, including casual wage employment and menial jobs, remittances, and state old age pensions.

In northern Kunene, the area around Okangwati is part of the Epupa constituency. According to the most recent census carried out in the country, the population of this administrative unit is about 18,000.

The average household has 6.3 persons and the population density in the area is 0.7 people per square kilometre (Republic of Namibia, Central Bureau of Statistics, 2014). The last four census reports did not include information on people's ethnic affiliation, but it is estimated that the majority of the population in northern Kunene are Himba pastoralists (Bollig, 2006). Part of the former homeland, Kaokoveld, the integration of this part of the country into the South African colonisation programme was less extensive than in Damaraland. Around Okangwati, due to policies aimed at isolating the territory (Bollig, 1998), the main economic activity is livestock farming, which is only marginally integrated with labour and sales markets (Bollig, 2006; Republic of Namibia, Central Bureau of Statistics, 2014). Currently, however, there is significant involvement of the state in the area and, more importantly, of NGOs; this may be at least partially explained by the area's remoteness and its potential for ecotourism.

The case study community of Ombaka consists of 13 households that own an average of 139.9 cattle and 213 small stock (std. 138; min=16; max=464). Here, as in the rest of the region, livestock ownership is very unequally distributed, with 6 households owning more than 200 cattle. During the rainy season (November to May), the cattle graze not far away from the homesteads to which they belong. Most of the time, the animals roam unattended and drink at the rivers that cross the settlement or at the earth dam located to the east of most of the homesteads. During dry periods, the situation changes greatly; in May or June, the herders (mostly young men) begin to move the cattle (especially the oxen) to cattle posts, or *ozohambo* (singular *ohambo*), which are located two to five kilometres from the village. In order to avoid making the cows and calves walk long distances, on their way to the cattle posts the herders first stop to let the cattle graze at some safe pastures near the settlement. When these are exhausted, the cows and calves are taken to the more distance cattle posts. In cases of prolonged drought, some livestock camps move to pastures as distant as southern Angola or the southern parts of the Kunene region. Those who adopt this strategy may sometimes stay away from the main household for a number of years. Goats and sheep, on the other hand, are kept at posts near the homesteads throughout the year; they do not compete with the cattle for fodder since they eat tree and bush leaves, which are common enough in the settlement area. Goats and sheep are herded mainly by women, and by children of whom many attend the mobile school in the village.

MATERIAL AND MORAL ECONOMIC PRACTICES

Most people in the southern part of our study area consider themselves to be Damara people (or *ǀnūkhoen*, which translates literally as 'black people'). Before contact with the German colonisers in the 1800s, the Damara people were mostly hunter-gatherers. Like many people in the region, they were integrated into larger trade networks, and it is very likely that they adopted different subsistence strategies at different times, including gardening and livestock rearing. Through contact with the Christian church and the colonial state, many Damara people were forced to settle and change their livelihoods (Sullivan and Ganuses, 2020). The transition was forced, in part, when the German colonial administration (1884-1915) created reserves to control the lives and economic activities of the local populations. To draw them into the market economy, the subsequent South African administration (1920-1990) imposed taxes, including environmental taxes on dogs to restrict hunting (Botha, 2005) and on grazing to control livestock keeping. To meet the demand for cash, people had to start selling labour to European settlers and milk, tobacco and meat to urban populations.

Today, only a small elite, mostly teachers and public servants, can count on a steady income, and everyone 60 years and older receives a minimum pension payment from the state. Moreover, as part of community-based natural resource management (CBNRM) policy, the area has recently been opened up for tourism investment; this has included the building of lodges and other tourist facilities within the established communal conservancies (Lapeyre, 2011).

These facilities, however, employ only 3% of the adult population of the area (Schneegg, 2018; Schneegg and Kiaka, 2018; Kiaka, 2018), and their monthly wages remain significantly lower than those of the area's

government employees. Other than those employed in the lodges and campsites, few people living in the area venture into tourism-related activities as their means of livelihood. CBNRM has made a limited contribution to the enhancement of people's livelihoods. In the meantime, however, conservation has increased human – wildlife conflict, which further constrains livelihoods; these conflicts include, particularly, depredation by wild animals and damage by elephants at water points (Schneegg and Kiaka, 2018; Hebinck et al., 2020; Kiaka, 2018). All of these things in combination make the economies of the area vulnerable to a wide range of social, political and ecological risks.

Moral economic practices in the southern part of the research area are highly egalitarian and show many parallels with hunter-gatherer societies of southern Africa (Barnard, 1992). With regard to sharing food, for instance, research carried out in the last two decades has established a difference between reciprocity-based and (demand-) sharing societies (Woodburn, 1998; Schneegg, 2016a, 2015; Peterson, 1993). In reciprocity-based exchanges, goods are privately owned. They are transferred from one actor to the other in expectation of future reciprocation or to establish social bonds through social debt. In sharing economies, by sharp contrast, the goods that circulate do not have a single owner; rather, they are communal and belong to all (Schneegg, 2016a). In many southern Kunene communities, food and many other items of daily need are considered to belong to all. One cannot exclude a group member from having them, just as one cannot exclude him/her from accessing water or land. These sharing relationships establish a highly flexible social structure in which the reproduction of the social group is central and no one is on top. Since all goods and labour are shared, those who give more of one resource receive more of something else; moreover, and importantly, they may receive from a different person, as receiving from a particular person does not create an obligation to give in return to that same person (Schneegg, 2015, 2016a).

The egalitarian ethos of most communities also extends to their relation to leadership. Many people assert that they do not like it if someone steps up and starts telling others what to do. People fear that the person will soon feel superior and will begin to dominate the others through their actions and thoughts. In this situation, many people will resist or withdraw, or will apply other social tools to 'cool down' the person, including witchcraft, accusation and gossip. Decisions are therefore commonly made when most adult members of the community are present.

The German colonial state did not have significant influence in northern Kunene; however, this changed radically with the subsequent South African colonial administration. Under apartheid ideology, the region became part of the Kaokoveld homeland. A policy of encapsulation was imposed which restricted trade with southern Angola in the north and Ovamboland in the west, and also constrained the movement of people and livestock from the northern Kunene region to central Namibia. Under these imposed restrictions, Himba pastoralists had to deal with hazards such as extreme droughts, livestock deaths, population growth, and environmental degradation (Bollig, 1998, 2006).

These policies of mobility and trade restriction transformed an erstwhile diversified pastoral economy embedded in regional trade networks into an isolated subsistence-oriented herder economy; this situation continued almost until the country's independence in 1990. In 1992, the territory became part of the Epupa constituency, one of the six administrative units of the Kunene region. To date, however, the integration of Epupa constituency into labour and sales markets has been limited, and livestock farming constitutes the main means of livelihood for most of its inhabitants (Republic of Namibia, Central Bureau of Statistics, 2014). The veterinary cordon fence, which began to be built during the German colonial period and was completed in the 1960s during South African rule, is still in place. This fence, ostensibly put in place to prevent livestock – wildlife disease transmission, places restrictions on the trade of animal products from the north to south Namibia, from where meat is exported to the EU and other countries (Miescher, 2012).

The social organisation of the pastoral Himba in the north is based on the principles of the double-descent system, which is constituted by matrilineal and patrilineal descent groups. Membership in the

matriclan and patriclan is conferred by birth and individuals trace their descent to a common ancestress/ancestor who may have been born several generations earlier. The matriclan is dispersed due to the rule of patrilocal residence, while the patriclan is localised. Matrilineages control the bulk of livestock, which is inherited matrilocally; that is, the herd of a deceased man will be inherited by his brother, or, in the absence of a brother, by his sister's son (Crandall, 1992; Bollig, 2006). Similarly, cattle gifts are usually given through the matriline, especially by one's mother's brother; during times of drought, one can also turn to him for water and pasture (van Wolputte, 2003).

Among Himba pastoralists, kinship relations through lineages are the fundament of institutions of support and moral obligation towards the poor. Wealthy herders loan single animals, and sometimes even entire herds, to young relatives and impoverished herders from the matri- and patriclan, including members of the father's matrilineage. The recipients may consume milk from the animals and, to a very limited extent, meat. If a loaned cow has calves, the herder may keep the animal, with the permission of the owner; in that way he can build up his own herd. These donations of livestock, however, establish patron – client relationships and most often take place between persons living in the same community.

Food is shared in times of drought, but it is also a sign of hospitality towards guests and kin. Milk and porridge are given to visitors and a sheep or goat may be slaughtered if the host wants to honour the visitor. On a neighbourhood level, mainly meat is shared between households; maize and milk are not usually shared beyond the homestead, although in times of drought this may indeed occur. Meat is distributed to a wider range of people, especially in the context of rituals such as marriage, initiation, or commemoration, at which many guests from the neighbourhood are present as are members of the matrilineal and patrilineal network. In case of extreme drought, a succession of small stock animals may be slaughtered and distributed exclusively within the kin group that stays together. Wealthy livestock owners slaughter and distribute more meat than poorer herders. The sharing networks are thus hierarchical and, in times of stress, they are reduced to the kin group.

COUNTING THE CONSEQUENCES

In north-western Namibian communities, water was traditionally free of cost; community-based water management, however, turned it from a public into a common good, and eventually into a quasi-private commodity. Today, all pastoral communities in the Kunene region maintain payment regimes to cover the costs of water. Since most pumps used for supplying water for livestock use diesel engines, the price of water is determined largely by the amount and price of the diesel fuel that is required to pump it. Users thus must agree on a cost-sharing principle. The handbooks of the Directorate of Rural Water Supply that were used to guide the process of crafting and designing institutions recommend "a rate per head of large or small stock, each member paying a certain rate per head of large or small [stock] accordingly, as to raise enough money to sustain the water point" (Republic of Namibia, Ministry of Agriculture, Water and Forestry, 2006). We refer to this arrangement as the per-head-of-cattle rule (PHOC rule) or, alternatively, as proportional equality).¹

In 2012, when we conducted the ethnographic upscaling research (Bollig et al., 2020), out of the 56 communities only 25 (44.6%) were following the PHOC rule.² Seven other communities (12.5%) were using an attenuated form of the rule in which wealthy cattle owners paid more, but not exactly according to their number of livestock. They paid, for example, N\$200/household/month, while the poor paid

¹ The Directorate also instructs communities to collect a monthly levy of N\$10 per household for human consumption. For two crucial reasons, however, our focus remains on the contribution rules for livestock: first, because these rules constitute the main point of contention among water users; and second, because, in practice, many communities did not collect the household levies.

² Seven communities were excluded from this comparative analysis because some of the necessary information could not be collected in a sufficiently reliable way.

N\$100/household/month. In 24 communities (42.9%) the proportional (PHOC) rule was promoted by the state and NGOs, but was never practiced; instead, equal payment was required of all households, which we refer to as the 'flat-rate rule' (Schneegg, 2016b; Schneegg et al., 2016). An examination of how those rules are lived and practiced reveals some differences.

Throughout southern Kunene, most communities agreed on a flat-rate rule for payment of water costs. This includes the cost of buying diesel to pump water and also that of repairing broken pipes and pumps. For the diesel contribution, there are two scenarios within the flat-rate payment regime. In the first scenario, which is common in more than half the communities, each household is allocated a particular month in which it must contribute the required diesel, usually between 25 and 35 litres depending on the engine's consumption. In most cases, the diesel is given to the caretaker of the water point, the person who has been appointed to pump water.³ In the second scenario, households contribute a fixed sum of money every month which is collected by one person and used to purchase diesel. The amount of money differs from one community to another, depending on the actual costs.

Table 1. Distribution of costs of water across wealth categories in †Khoadi †Hôas (n = 81).

Wealth category	Percent of sample households	Percent of livestock owned			Contribution to water	
		Cattle	Goats	Sheep	Amount of money (N\$)	Percentage
Wealthy	15	63	53	68	112	38
Middle	44	26	34	27	108	36
Poor	41	11	13.	5	77	26

Source: Authors' data.

While in principle people agree to contribute the same amount of money or diesel, in practice deviations are observed. Data collected in both Fransfontein and in the †Khoadi †Hôas conservancy show variations in the amount of diesel or money that households contribute. In the †Khoadi †Hôas conservancy, for example (Table 1), in absolute terms, wealthier households that consume more water because they own larger herds pay more for water (N\$112/household/month) than do poorer households (N\$77/household/month). Households in the middle wealth category, whose livestock holding is significant, contribute almost as much as the wealthy households. In relative terms, however, there is only a small difference across wealth categories in terms of contribution towards diesel cost; it is incompatible with the inequalities in their water consumption as determined by size of livestock holding. Despite, for example, the wealthiest 15% of the population owning over 60% of the cattle, their contribution towards the purchase of diesel is only 38%; in contrast, the poorest 41% of the population, owning only about 10% of the cattle, contribute 26% of monthly diesel costs. It is thus clear from the data that, in practice, there is no strict adherence to the flat-rate cost-sharing regime regarding diesel contribution that is generally agreed upon by the communities.⁴ To this end, we observe a scenario where the poor tend to shift cost-sharing towards a per-head-of-livestock regime, even though, strictly speaking, they do not achieve it.

A similar readjustment of payment inequalities occurs with regard to the costs of repairing broken water pipes and pumps which, again, is supposed to be governed through a flat-rate regime to which communities have agreed. The following case study helps illustrate the point.

³ Before the decentralisation reforms, local residents were designated as caretakers by state authorities; now, they are elected by their communities.

⁴ Similar findings emerge from work done in communities in Fransfontein, where deviation from the flat-rate regime is even more pronounced (Linke, 2017).

In May 2015, in one of the communities of ǀKhoadi ǁHôas, Mateus (the caretaker) discovered that the water pump was broken. The cost of replacing the broken part was about N\$3000. Mateus, together with the chair of the Water Point Committee, called a community meeting to discuss the matter and to decide how they would raise the money to buy the new part. The meeting decided that each of the 15 households in the community would contribute N\$200 towards the cost, and for one week Mateus and the committee chair went around the community collecting the money. Nearly all the households, however, contributed less than the N\$200 that had been agreed upon; instead, they contributed what they had and were willing to give. When one woman was asked why she had contributed less than the agreed amount, she responded that, "I can only give what I have. (...). The amount was proposed just as a target, but here we contribute what we have and according to what we get [income]". Mateus and the committee chair did not seem disappointed or bothered by this deviation from the agreement; such flexibility was, after all, accepted and it pervades the entire domain of collective action in the community. In the end they collected only N\$1600 and the rest of the money was contributed by two wealthy farmers from the community. When the chair was asked if those who did not contribute their share would feel guilty that the two farmers had contributed extra, he answered, "But they have more livestock. Many, like 80 heads cattle and many goats. Others, like me, have only a few livestock".⁵

We have often observed that, as in this case, whenever there is damage at the water point that requires community members to contribute towards the cost of repair, meetings are held and usually an agreement is reached to divide the costs equally. This decision is generally reached without considering the wealth categories of the households, even though people are conscious of these socio-economic differences. The practice is influenced by the egalitarian nature of the communities living in the region; this also affects other domains of life, as we show in more detail below (Schneegg, 2015, 2016a).

Throughout northern Kunene, slightly more communities use a PHOC rule than a flat-rate rule. New water pumps (most of them fitted with solar panels) had been installed from the beginning of the 2000s in northern Kunene by a European NGO that was very active in the area. Throughout the region, a slightly larger number of communities were observed to be using a PHOC rule; this can be explained by the fact that the data was collected just after communities took on the responsibility for managing their newly installed water pumps, and by the quality of the training and follow-ups conducted by the NGO.

In the communities in which a flat-rate regime is practiced, our informants reported that the wealthy refused to pay according to the PHOC rule and insisted that everyone should pay the same. In interviews in these places, sentences such as "the rich do not want to count their cattle", or "I as a young man cannot do anything against the elders" were frequently recorded. Opposing the position of the wealthy was very difficult for the poor, as we will show below. Across all communities, however, there was no record of poor households failing to pay their water point contributions, especially in places where a flat rate had been implemented.

In sum, we observed a stark difference: while in the south the poor find ways to undermine the flat-rate regime and to pay less than the wealthy in absolute terms, in the north they do not do so. The following section will explore the reasons for this.

THE WEAPONS OF THE POOR?

So far, we have seen differences between the north and the south in terms of the ways institutions are practiced. While in the south the poor find ways to avoid payment, in the north they cannot and often do not want to do so. In the theoretical discussion, we proposed institutional multiplexity and bargaining power as conceptual tools to explain the diversity we observed. Among other things, institutional multiplexity implies that existing social and moral structures circumscribe the ways in which institutions

⁵ Fieldnotes from ǀKhoadi ǁHôas by Kiaka, May 2015.

are practiced. As we have seen, there are quite significant differences between the north and the south in terms of social structures and moral economic practices. While the situation in the north is reciprocity-based and largely hierarchical, in the south it is egalitarian. The following analysis will reveal how the two findings are linked.

In the south, sharing dominates many economic transactions and may be summarised as: if you have, you must share. When people share maize meal, sugar, milk or tea, attention is not given to the amount shared, but only to the fact that it is shared; for sugar, for example, people typically demand and receive a cup (200 ml). Whether the wealthy give more often and in higher amounts than the poor is not negotiated; rather, it is taken for granted. Neither is there a conscious expectation of reciprocity for what is shared, particularly in terms of amounts that would balance transfers (Schnegg, 2016a). The same holds true for sharing meat. When we asked people how they would share game meat after a hunt, the response was all but unanimous: "[W]e will divide it equally amongst the households in the community because if others get less, say they have a few people in their households, they will complain about those who get more and a conflict can arise".⁶ In practice however, meat – a resource that is important for survival – is not shared as equally as this unanimity suggests. Sympathy with vulnerable groups or individuals prevails as a normal and acceptable practice; it shapes the eventual distribution such that they get more and others less. Such flexibility characterises the distribution, and those who are seen to be more deserving or in greater need receive a bigger share than the others.

As with food, in a flat-rate regime people agree to share water-related costs equally; however, flexibility that is nuanced by the social institution of sharing allows the poor to request that they be allotted a proportionately smaller share of costs, although in this they may be only partially successful. Much as with food, it is expected that the wealthy are more often in a situation where the norm of 'if you have, you must share' applies, and that in the end they will give more. Likewise, those who are more in need can expect to receive proportionately more support from the community.

Among the Himba in the northern part of the Kunene region, in contrast, social relationships of support are much more hierarchical and exclusive. Wealthy herders loan single animals and sometimes even entire herds to young and/or impoverished relatives so they can start building up their herds and can continue a pastoral livelihood. The recipients may consume milk from the animals and, to very limited extent, meat. If a loaned cow has calves, the herder may keep the animal with the permission of the owner and so build up his own herd. These transfers, however, take place within kinship ties, especially through the matriline; non-relatives are rarely beneficiaries of these networks of support. These donations of livestock, however, establish patron – client relationships and are interconnected with notions of authority and status. Among Himba pastoralists, authority is rooted in wealth and seniority, which are correlated: young herders (25 to 40) are usually poor and dependent on livestock loans, while elder heads of households (especially those above 60) are typically wealthy (Bollig, 2006).

Because of the nature of these patron – client relationships, when the responsibility for paying for water is introduced, these institutions of support become challenged (Menestrey Schwieger, 2019). As recorded for Ombaka, for instance, when villagers had to decide how to collect the contributions for the water point, the wealthy and the poor held opposing views. The young and/or impoverished were dependent on the cattle loans from their wealthy relatives in order to access milk, reproduce their own herds, and thus be able to continue a pastoral livelihood. They therefore succumbed to the interests of the wealthy for several reasons. First, they hesitated to contradict the elders – who were at the same time close relatives – due to cultural norms of conduct; second, they feared verbal hostility and even witchcraft if they rebelled openly against them; and third (and most importantly), the poor were not in a position to force their wealthier neighbours to implement the 'per animal' rule because they were dependent on the cattle loans and feared that their wealthy patrons would ask for their animals back as

⁶ Response by a man during an ethnographic upscaling in Fransfontein in 2015.

retribution for confronting them. As 36-year-old Kapiringi expressed it, "We cannot force our fathers, otherwise, they will take our cattle away".⁷

This situation was observed in other places as well, for instance in the community of Otjiwombo, which is about 50 km east of Ombaka. When asked why people in the community were not implementing the PHOC rule, Kanene, a young man in his mid-30s, expressed the situation of 4 of the community's 13 households when he said that,

We were sitting for two days discussing about the rule of paying according to the amount of cattle. But the rich ones opposed. They said 'I am paying N\$400 and you are paying N\$5. Your cattle are going to drink the water I pay'. But what can I, Kanene, say against the rich? Maybe they will take the cattle they gave me for milk? (Interview in Otjiwombo, 1 September 2012).

Bargaining power is shaped by a number of factors besides social structure and moral economic practices. These include herd sizes, herding patterns and customs, and distance between water points.

Herd sizes

As we have seen, poorer households in southern Kunene have very few head of livestock and some poor households do not own any livestock at all (Schneegg et al., 2013; Schneegg, 2016b; Kiaka, 2018). When livestock gather at the water points to drink, the few livestock of the poor become visually insignificant. When there is no diesel to pump water or when the water point infrastructure needs repair, stronger emphasis or pressure to contribute is put on those with larger herd sizes. As the comments of the Water Point Committee chair quoted above show, the herds of wealthy households are conspicuously large and the effect in terms of water consumption is obvious. The poor with small herds thus know, strategically, that with relatively little to lose they have higher bargaining power and can simply wait for the water to be pumped by the wealthy; wealthy herders, in contrast, have a lot to lose and thus wield less bargaining power (Knight and Sened, 1995; Knight, 1992).

In the north the situation is different. The most important indicator of wealth among Himba pastoralists is the number of livestock they own, especially cattle. Cattle carry an additional importance because, apart from their higher value compared with goats and sheep, they also confer prestige on the owner. Wealthy herders can have well above 400 head of cattle, while the poor own very few or none, and sometimes subsist solely on small stock. Like cattle herds, small stock herds vary in size, but the differences in herd size are less dramatic. While wealthy herders can possess up to 400 head of small stock, poor households may have only around 100 head (Bollig, 2006); this means that even though a herder in the north can be considered poor because he does not have a large number of cattle, he can still have a significant number of animals that need water. The poor have significantly more to lose in terms of material and symbolic wealth if small stock are deprived of water; they thus feel pressure to contribute to its cost. The poor in northern Kunene therefore have less bargaining power against their wealthier fellow herders than do their counterparts in the south.

Herding

As mentioned above, among livestock, cattle are the greatest consumers of water. In southern Kunene, cattle are not herded; rather, they graze on their own in the commonage and return habitually to the water point to drink water (Kiaka, 2018). In all communities, the practice is that only one person (usually the caretaker of the water point) opens the taps to fill the water troughs for the livestock; thus, when the cattle spontaneously come to the water points – without a herder – there is no one upon whom the caretaker can put immediate pressure to contribute to water costs, even when he knows that the owners of the cattle have not paid. For the livestock of wealthier households, however, the situation changes;

⁷ Interview conducted in Ombaka on 29 October 2011.

these cattle also graze in the field without a herder, but when they return to the water points they are supervised by the household's employees to ensure that they drink water. In cases where their employers have defaulted on the water contribution, sanctioning is thus immediately possible through complaints or reminders.

In the northern region, in contrast, Himba pastoralists usually move their herds and establish livestock camps (*ozonganda*) during the dry season when the pastures in the vicinity of the main households (*ozonganda*) are depleted and need rest. Due to their different grazing requirements, oxen are preferably herded separately from young stock (tollies/bullocks and heifers). Male goats and sheep are also taken from the household and brought to separate small stock camps. If there is not enough fodder in the vicinity of the main household, cows are also moved to the cattle camps when calving starts towards the end of the year (Bollig, 2006). These practices require intensive supervision and work on the part of the herders.

In this context, sometimes the animals come of their own accord to the borehole, but the herders prefer to collect them and guide them to the water point. Many herders do not like their animals to mix with other herds; at the water point, however, the herders need to coordinate the drinking of water, since many animals⁸ arrive there at the same time. Such coordinated drinking is aimed at avoiding fights between the animals (and the possible inflicting of injuries) and at maintaining the 'first come, first served' rule at the borehole. In terms of water management, this enables more extensive monitoring in that herders from households that do not contribute can be made accountable when they arrive at the borehole with their animals. This public confrontation exerts pressure on the herders to pay their contributions.

Distance between water points

Most communities in Fransfontein and ǀKhoadi ǁHôas live in areas that were commercial farms before they were re-delineated in 1970 to form the so-called Damaraland. This redrawing of boundaries occurred in the context of the implementation of the Odendaal Plan, with its apartheid ideology of 'separate development' that led to the creation of the homelands (Republic of South Africa, 1964). While large farms – those over 2500 hectares – have more than one water point, water points on smaller farms that are adjacent to each other can easily be reached on foot or by donkey cart. Generally, the distance between water points in southern Kunene ranges between 1 and 4 km; therefore, if people cannot get water from a water point because of damage, lack of diesel, or sanctions, they simply move to another water point in the village, or to settlements like Fransfontein, Erwee or Anker, where they can get water for free. This is illustrated in the following interview excerpt:

Richard: Why do you fetch water from Rooiplaas, yet you have your own water point here in Blauplaas?

Simon: Last month, I was the one who was to give diesel for pumping water. But I went to visit my sister in Outjo. So I used my money for the fare and remained with no money. So last week, Jacobus [the pumper] said that if I don't give diesel, I don't get water. It is because he knows that I was paid my monthly disability money. But he knows I don't have even a goat; others have many cattle and goats. I told him that this time I had to pay my credit in the shop and I don't have money left.

Richard: So what will you do? This is your water point, isn't it?

Simon: If I get money, I give diesel. I just need water to use at home. So I told him that he can stay with his water. I can just walk a short distance to Rooiplaas and fetch water. I just need may be 10 litres of water a day, not like others with lots of livestock.⁹

⁸ In some communities, more than 800 head of cattle might come to a single water point every day (Menestrey Schwiieger, 2017).

⁹ Interview conducted on 8 August 2015 in Miheras, ǀKhoadi ǁHôas.

Simon's case is typical of that of many poor households in southern Kunene who sometimes passively resist a flat-rate regime for sharing the cost of supplying water. Simon not only describes his vulnerable socio-economic situation, which hinders him from making his contribution during the month allocated to him; he is also conscious that he does not consume as much water as the others who have livestock while he does not. Many people in Fransfontein and ǀKhoadi ǁHôas are aware of these inequalities and find ways of withdrawing from the flat-rate regime. As in the case of Simon, they go to neighbouring communities that are usually accessible on foot or by donkey cart to get water for domestic use or for the few livestock, if any, that they own. Fetching such small amounts of water is visually insignificant and usually does not raise much concern from the community, especially when people know that it is just a temporary means of survival or a short-term remedy. In contrast, the wealthy need much more water and thus cannot bargain as much as the poor.

In northern Kunene, in contrast, distances between water points are larger, which implies higher costs. Even though the region was the target of an extensive borehole-drilling programme during the implementation of the Odendaal Plan in the late 1960s, boreholes were not installed as systematically and in as large numbers as in the south, where the development of commercial farming structures was intended and population density was higher. Distances between boreholes are thus large, despite the recent efforts of the independent Namibian government in collaboration with international NGOs to increase access to groundwater in the region through the construction of more boreholes. Livestock in the area must thus cover greater distances, especially in the dry season when, as explained above, some household members move to cattle camps; even within a single community, people may have to walk 1 to 3 km to reach a water point.

CONCLUSION

In Namibia, global CBNRM policies have transformed water, which was formerly free, from a public into a communal good, and today all households must pay for it. While this places a burden on all, the extent of the burden differs. Across most of the communities assessed, all households were paying the same amount regardless of wealth differences; in effect, the poor were subsidising the water consumption of the wealthy. Such institutions are, even so, practiced differently; in the northern research area the poor pay their share, while in the south they typically find ways to resist paying.

We have shown that the social structure in which people are embedded is key to explaining those differences. In the north, the social structure is largely shaped by patron – client relationships that establish a hierarchical and reciprocal order of giving and taking between two specific actors, that is, the patron and the client. The respective parties possess distinct goods, that is, the patron owns the livestock and its dairy products and the client can offer their labour. In the south, the social relationships are more egalitarian, in that people share food and labour on relatively equal terms following the norm of 'if you have, you must share'. Clearly, some have more than others and are more often in situations where they can share; at the same time, even the poorest household must, if it can, share with the wealthy. This social structure can largely explain why the poor in the south find ways to resist a situation which they perceive to be unfair. In the north, in contrast, poor pastoralists who are embedded in patron – client relationships rarely succeed in resisting. This particular social and moral order restricts the agency of the poor.

In addition to the social structure, in the south a number of other factors strengthen the situation of the poor. It is comparatively easy for them to find alternative water sources for their small herds, and, since animals come to the water points on their own, it is difficult to make their owners responsible for paying. In the north, in contrast, the poor own much more in terms of small stock and thus have a greater need to access water and are better able to pay for it. They also come personally with their herds to the boreholes, which makes it easier for their wealthier kith and kin to pressure them to pay the agreed-upon share.

In both areas, agents are embedded in multiple institutions; however, the institutions differ. In the north, the patron – client relationships in which the poor are embedded can become a two-edged sword, when the responsibility to pay for water becomes pressing. On the one hand, these relationships provide them with food security; on the other hand, however, the patron – client relationships restrict the bargaining power of the poor because they are dependent on the wealthy for their livelihood and they thus cannot negotiate on equal terms with their wealthy neighbours over how costs should be distributed. With considerable numbers of small stock that require water, they also cannot withdraw completely from water point contributions.

In the south, the poor are embedded in sharing institutions, where it is expected that those who have must share with those who do not. The bargaining power of the poor in the realm of water management thus becomes greater, since it is understandable that they cannot contribute as regularly as the wealthy. They also have fewer animals, which makes it easier for them to avail of alternative water sources if they are told at some point that they must contribute.

In sum, the analysis has shown that the economic effects of having to pay for water differ depending on the social structure in which they are practiced. At the same time, national-level policies are implemented throughout the country regardless of regional specificities. Our findings suggest that such regional variations should be considered when implementing new legislation, and that development strategies may need to vary in order to achieve equivalent gains or avoid region-specific costs. Without this, the commodification of water leads to different prices for the poor and the wealthy. This is likely to make the wealthy wealthier while the poor pay for their success.

ACKNOWLEDGEMENTS

We thank all members of the LINGS project, the participants of the Troubled Waters workshop in Hamburg as well as two anonymous reviewers for their valuable comments on earlier versions of this manuscript. We also thank the communities of Fransfontein, †Khoadi †Hôas and Ombaka for allowing us to conduct fieldwork in their localities, and Kapezuva Rutjani, Melitta Ortner and Kevin Doeseb for their translation work. Finally, we want to express our gratitude to the DFG (Deutsche Forschungsgemeinschaft) for providing generous funding for this research.

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