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Subsidized elephants: Community-based resource governance and environmental (in)justice in Namibia

Michael Schnegg*, Richard Dimba Kiaka

Institute of Social and Cultural Anthropology, Universität Hamburg, 20146 Hamburg, Germany

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ABSTRACT

After independence, and in accordance with global environmental policies, the government of Namibia partly transferred the responsibility for managing wildlife and water to local communities. In this article, we use the concept of environmental justice as a theoretical guide to explore the combined effects that these new policies have had for pastoralists in arid, rural Namibia. We find, firstly, that partly due to conservation efforts, the elephant population has increased significantly. While a healthy elephant population supports exclusive, international tourism, the elephants are causing ever-increasing destruction at communal water points thus leading to increasing local financial costs. Only a small fraction of the revenues from community-based tourism, however, remains in the communities, and relatively few people profit from these revenues directly. Secondly, as new community- level sharing institutions for water emerge, pastoralists who are economically marginalized are subsidizing the financial costs of water for both their wealthy neighbours and the tourism industry. Looking at the combined effects of CBNRM policies for water and wildlife management, these policies are likely to lead to better resource management but greater economic inequality. To interpret these findings, we consider how CBNRM transforms landscapes and wildlife into global commodities. This process pulls communities into new common property regimes as well as towards privatization at the same time and helps to explain the social-ecological changes we observe.

1. Introduction

With Namibia's independence in 1990, there was an urgent need to address the injustices of the past. Since the apartheid state had based its regime inter alia on wildlife and water policies, natural resource management after independence thus required serious attention. In this societal context, it became imperative for Namibia's environmental legislation to transfer the responsibility of managing wildlife and water from the state to local user groups (Jones and Weaver, 2009; Nuulimba and Taylor, 2015; Schnegg, 2016b; Vette et al., 2012). This ambitious political project was informed by global environmental policies and, most importantly, by the model of community-based natural resource management (CBNRM) (Jones, 2010; Jones and Weaver, 2009).

The model of CBNRM is partly supported by research which has shown that local user groups often develop institutions to govern natural resources successfully over long periods of time (Berkes et al., 1989; Bromley et al., 1992; Ostrom, 1990; Wade, 1994).[1] Therefore, CBNRM promotes reforms that decentralize rights from the state to local communities (Agrawal, 2001; Dressler et al., 2010:3). According to the supporters of this development regime, the livelihoods of people improve once they are empowered and they are able to reap the benefits that had previously been beyond their control. Furthermore, once people profit economically they have more incentives to protect their resources for sustainable usage. According to critics of this model, in order to generate profits locally, CBNRM turns both landscapes and wildlife into global commodities (Garland, 2008). Since conservancies require financial capital to create those commodities, they open up 'the commons' as symbolic and material spaces for capital accumulation to private investors (Brockington and Duffy, 2010:479). As a result, decisions, including those about the distribution of benefits and costs, increasingly spin out of their control (Bollig, 2016; Silva and Motzer, 2015; Sullivan, 2006, 2017).

After independence, the Namibian state guided by NGOs adopted a positive approach to CBNRM and promoted community-based approaches as a perfect cure for the injustices of the past, promising social, economic and political empowerment for rural communities as well as ecological sustainability. With these political ambitions in mind, the first Namibian government began enacting new legislation for water

* Corresponding author.
E-mail address: michael.schnegg@uni-hamburg.de (M. Schnegg).

[1] Other motivations include the aim of neoliberal policies to transform the role of the state from a manager of public goods to a guarantor of market mechanisms.

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and wildlife management.

With regard to wildlife, communities were given the opportunity to manage large fauna on their own (in locally bounded user groups called conservancies) and to reap the financial benefits obtained through their conservation efforts. At the same time, private investors gained access to landscapes and other resources formerly out of their reach (Silva and Motzer, 2015; Sullivan, 2006, 2017). With regard to water, the shift towards CBNRM implied that community associations had to find ways to share pumping costs (Falk et al., 2009; Heyns, 2005).[2] These CBNRM policies have led to situations where actors at different levels – local, national, and international – now share the costs and benefits involved in new orientations toward the environment (Bollig, 2016; Bollig and Menestrey Schwieger, 2014; Schnegg, 2016b).

In Namibia, and many other countries in sub-Saharan Africa, CBNRM is applied to different resources simultaneously. However, these resources are regulated by specific legislation and often fall under the control of different ministries. Yet, the various environmental resources including water, wildlife and forests are intertwined in people's daily lives (Bollig and Menestrey Schwieger, 2014).[3] Given the interconnectedness of resources in daily use, we introduce and further explore a holistic framework for analysing the social-ecological consequences of environmental policies and change. This strategy allows us to avoid singling out specific resources, both politically and analytically.

The overall aim of this analysis is to explore the consequences of CBNRM policies for rural communities in northwestern Namibia. In other words, we ask who gets what and who has to live with what. In addressing these issues, we apply the notion of environmental justice as a theoretical guide. The concept of environmental justice originated in the early 1980s in the United States as a way of analysing the effects of dumping waste on poor, minority, and marginalized communities (Schlosberg, 2009; Walker, 2012). During the past few decades, environmental justice has developed from a framework that aims to make the unequal effects of environmental pollution in industrialized countries more visible to one that is also applied to many other environmental issues in developing countries (Agyeman et al., 2016; Schroeder, 2008; Schroeder et al., 2008).

Initially, studies of environmental justice focused on how costs and benefits of living with particular environmental conditions are distributed among different social groups, e.g. racial groups, classes, and communities (Martin et al., 2013:123; Walker, 2012). In general terms, justice is seen to take place if the members of a community perceive the relationships among them as equitable and fair (Alexander, 2008:134). However, what is perceived to be 'fair sharing' hinges on a plurality of culturally and contextually embedded principles (Henrich, 2004; Sen, 2009; Schnegg, 2016a). Thus, environmental justice first of all aims to explore (1) who gets what, (2) who has to live with what, and (3) whether people perceive this distribution to be equitable and fair.

More recently, however, some scholars have pointed out that the focus on the distribution of costs and benefits is too narrow to adequately capture the concerns of justice (Martin, 2013; Martin et al., 2015; Martin et al., 2016; Martin et al., 2013; Schreckenberg et al., 2016; Sikor et al., 2014; Urkidi and Walter, 2011). To overcome this narrow focus, they have proposed to acknowledge *procedures* and *recognition* as two additional dimensions of justice (Schreckenberg et al., 2016; Sikor et al., 2014). *Procedural* (in)justice refers to the process by which members of a community engage in political decision-making, for example in processes leading to participation or elite capture (Agrawal and Gupta, 2005; Dasgupta and Beard, 2007). *Recognition* (in) justice emphasizes the fact that people have different epistemological and ontological worldviews and refers to policy designs and implementations that acknowledge such differences and avoid interference with people's worldviews and the enjoyment of their rights (Martin, 2013; Martin et al., 2016). In the context of CBNRM, this implies acknowledging partly incommensurable value-frames and orientations towards the environment beyond Western, neoliberal ideologies (Martin et al., 2013; Sullivan, 2006).

In this article, we focus first on *distributional* effects, because, as our analysis reveals, distribution is a major concern for the communities we work with. Every single day, people negotiate, quarrel, and even fight about the equitable distribution of various costs and benefits associated with CBNRM. Based on our understanding of distributional justice, we examine how distribution impacts on procedures and recognition.[4] As the analysis shows, injustices in one domain have consequences for the other two.[5] Before proceeding to assess these questions, some background on the ethnography that provides the basis for our research is in order.

2. Living in northwestern Namibia

The ethnographic focus of our study is the Kunene region in Namibia, and specifically the ǂKhoadi ||Hôas conservancy. Established in 1998 as a communal conservancy, ǂKhoadi ||Hôas has a population of about 4,300 inhabitants and occupies 3,366 km^2 of land. ǂKhoadi ||Hôas is a phrase in Khoekhoegowab, a Khoisan language of the Khoe-Kwadi family. The name consists of the two words, ǂkhoadi ('many female elephants') and ||hôas ('corner'). Thus, it refers to the 'elephant's corner'. Nuances of this meaning will become clear on further reading of this text.

In the reports of conservation NGOs, ǂKhoadi ||Hôas is often presented as a success story and serves as a model for CBNRM in Namibia. ǂKhoadi ||Hôas is well known for being the first to construct a 100% community-owned tourist lodge and receiving a Community Benefit Award at the prestigious World Travel and Tourism Council's 'Tourism for Tomorrow'.[6] Moreover, since 1999, ǂKhoadi ||Hôas has been a stable player in Namibia's trophy hunting industry and creates employment and cash income for the local community (Nuding, 2002; Roe et al., 2001; Lapeyre, 2011).

Throughout Kunene, pastoralism is the main subsistence strategy and thus dependency on natural resources is high. Across the region, the average annual precipitation is below 300 mm and occurs in summer between November and April, with very high temporal and spatial variability (Schnegg and Bollig, 2016). With these climatic constraints, water and land are the two salient natural resources for a pastoral livelihood. During the entire year, an average access to more than 25–30 ha of land is needed to sustain one head of cattle (Burke, 2004). The wide-ranging pastures are common property, and the organization of grazing does not incur monetary contributions, nor does it require cost-sharing arrangements.

Throughout the Kunene region, natural springs and pans which fill after rainfall can sustain significant human, livestock, and wildlife populations. In addition, and partly in response to access restrictions imposed by colonial regimes, pastoralists use different strategies to acquire water, including: (1) constructing dams along seasonal rivers, (2) digging holes into the sandy beds of the rivers where the water stays long after the river has stopped flowing at the surface, and (3) drilling

[2] In relation to water it would be more precise to speak of community-based water management (CBWM). However, to facilitate the analysis of two community-based approaches to natural resources, we refer to both policies under the more general term of CBNRM.

[3] In the area under study, forests were not much of a concern, so the focus was only on the combined effects of water and wildlife policies.

[4] Our prioritization of distributional justice does not imply that distribution should always be the entry point of analysis. In selecting this focus, we rather follow the local discourse and concerns. Moreover, there are links between procedures and recognition in the tripartite environmental justice framework, which we do not explore further in our analysis.

[5] In addition, conservancy programmes have direct effects on the latter two categories of (in)justice, even though we do not focus on them explicitly here.

[6] See https://grootberg.com/conservancy, accessed 7/3/2018.

boreholes to access the groundwater. These boreholes are fitted with various forms of technological infrastructure including windmills, hand pumps, electric motors powered by solar panels, and diesel engines – the most common and important of all.

Between 1960 and 1990, the colonial state increased the number of boreholes in Kunene by almost a factor of ten to implement its large-scale resettlement policies to populate Namibia's hinterlands and to meet the requirements of demographic growth (Bollig, 2013:323). As in other parts of Africa, this 'hydrological perforation' of the landscape fostered a more sedentary lifestyle (Gomes, 2006; Picardi and Seifert, 1977). Today, water is almost exclusively provided through boreholes during the dry season (April to November). During the rainy season, dams and holes that are dug to access water supplement but do not replace the borehole water supply.

In the arid environment one head of cattle drinks about 27 L per day, and goats and sheep drink about 2.2 L of water (Wilson, 2007). In comparison, humans use about 20 L of water for drinking and sanitation if water has to be carried to the home (Linke, 2017:107). With large livestock herds, water usage for animals is thus significantly greater than for human consumption (Schnegg, 2016b).

Kunene is also home to the desert elephant (*Loxodonta africana*) who drinks from the same water points as well. Under cool conditions, a mature elephant requires on average at least 150 L of water a day (Benedict, 1936:173; Sikes, 1971:97; Wright and Luck, 1984:272).[7,8] Since the seasonal movement of desert elephants in Kunene is among the longest ever reported, it is likely that the de facto water consumption of elephants in Kunene is higher (Leggett, 2006a). Bull elephants have been observed to drink every 3–5 days and breeding herds every 2–4 days (Leggett, 2006b), which implies that the actual water intake at a specific water point is 2–5 times higher than the average daily need for water mentioned above. All in all, these numbers indicate that an elephant uses as much water as five head of cattle or one medium-sized household (7–8 people).

Under South African rule, the ǂKhoadi ǁHôas conservancy was part of Damaraland, and most people in the area consider themselves Damara (or ǂnūkhoen, which literally translates as 'black people'). Damaraland was one of Namibia's 10 *bantustans* or 'homelands'. These territories were set aside by the apartheid state for the African population that was designated and divided into essentialized ethnic groups in an effort to implement its racist and segregationist policies and ideals of 'separate development'. Starting in the 1970s, people classified as Damara by the state were resettled to this geographic area. This area was created through the purchase of 223 freehold farms, previously owned and managed by 'white' settlers of diverse migration backgrounds (Rohde, 1997: 257). In the area of ǂKhoadi ǁHôas, the acquisition of commercial farms allowed Damara people to re-engage with pastoralism and pastoral lifeworlds that had been expelled through colonial occupation and settlement. The newly created homeland was subdivided into 12 administrative units or wards, each headed by a local and state-supported headman (Afrikaans, 'hoofman') (Rohde, 1997; Schnegg et al., 2013).

ǂKhoadi ǁHôas has a paved road connection with Namibia's urban centres, and national labour migration plays a role in the household economy. Moreover, and as shown in more detail below, the conservancy itself is one of the sources of employment. Apart from those who find work with the conservancy, only a small local elite, mostly teachers and public servants, can count on a steady monetary income. The livelihoods of the majority of households depend on a combination of diverse social and economic strategies. These include pastoralism, wage labour, migration to urban centres, and state welfare. Combining strategies at the household level helps to reduce the risks and vulnerabilities associated with the highly volatile social and ecological environment. However, even with flexible strategies at hand, many households live a precarious life and frequently experience hunger and a shortage of basic supplies (Greiner, 2011; Schnegg, 2015, 2016a; Schnegg et al., 2013).

3. Methodology

The work presented here forms part of the LINGS project (Local Institutions in Globalized Societies) and is funded by the German Research Foundation (Deutsche Forschungsgemeinschaft, DFG). The two principal investigators, Michael Schnegg and Michael Bollig, have been conducting ethnographic fieldwork in northwestern Namibia since 1994 (Bollig) and 2003 (Schnegg) respectively, and are responsible for the overall design. In addition, six anthropologists have contributed to the data collection.[9] The initial ethnographic fieldwork was carried out between 2010 and 2012, and a second round was undertaken between 2014 and 2016. In both phases, extensive participant observation (of 12–15 months duration) allowed the researchers to develop an in-depth understanding of how people negotiate and carry out institutional programmes of water and wildlife management in their daily lives.

As Fig. 1 reveals, the ethnographies focus on four areas: Okangwati, Otwani, ǂKhoadi ǁHôas and Fransfontein. Therefore, the general information presented in this article covers all research areas and was collected as part of the entire LINGS project. However, most of the data about wildlife conservation and the overlap between water and wildlife management reported here was gathered in ǂKhoadi ǁHôas between 2014 and 2016. Richard Dimba Kiaka conducted the ethnographic fieldwork, and the methods employed included observation, a social network survey, interviews, and participating in everyday practices. To explore how incomes are generated and shared in the community, we conducted a monthly household census over a six-month period (July to December 2015). We interviewed households in 20 communities on whether or not they received support from family members employed in the conservancy. In addition, focus-group discussions were conducted with members of 20 out of the 44 communities of the conservancy in order to assess the consequences of water and wildlife management. These discussions revolved around issues such as the involvement of communities in conservancy affairs, distribution of benefits, and experiences with damage caused by elephants. Additional data was compiled through conservancy reports and interviews with conservancy officials and employees. Much of the statistical material presented below derives from these. Furthermore, we gathered information about damage caused by elephants at the water points through monthly survey interviews with household heads in all 20 communities.

4. Governing wildlife

4.1. The conservancy programme

Beginning with the German occupation in 1884, the colonial rulers based their regime inter alia on centralized control over wildlife. The German colonial administration introduced a law forbidding hunting in the crown land. These restrictions were broadened after the League of Nations commissioned the Union of South Africa to administer the territory under a Class C Mandate following Germany's losses in World War I. In 1927, the Game Preservation Ordinance prohibited hunting save for visiting state dignitaries and officials on duty in rural areas. However, before 1955, the game ordinance did not specifically refer to the African Reserves (Botha, 2005:179).

Towards the end of the 1950s, the Union of South Africa collapsed

[7] See also http://www.desertelephantconservation.org/AboutDesertElephants.html.

[8] This figure was confirmed by Keith Leggett (The University of New South Wales, personal communication 18/07/2017).

[9] Fieldwork was conducted by Richard Dimba Kiaka, Kathrin Gradt, Thekla Kelbert, Theresa Linke, Diego Menestrey-Schwieger, and Elsemi Olwage.

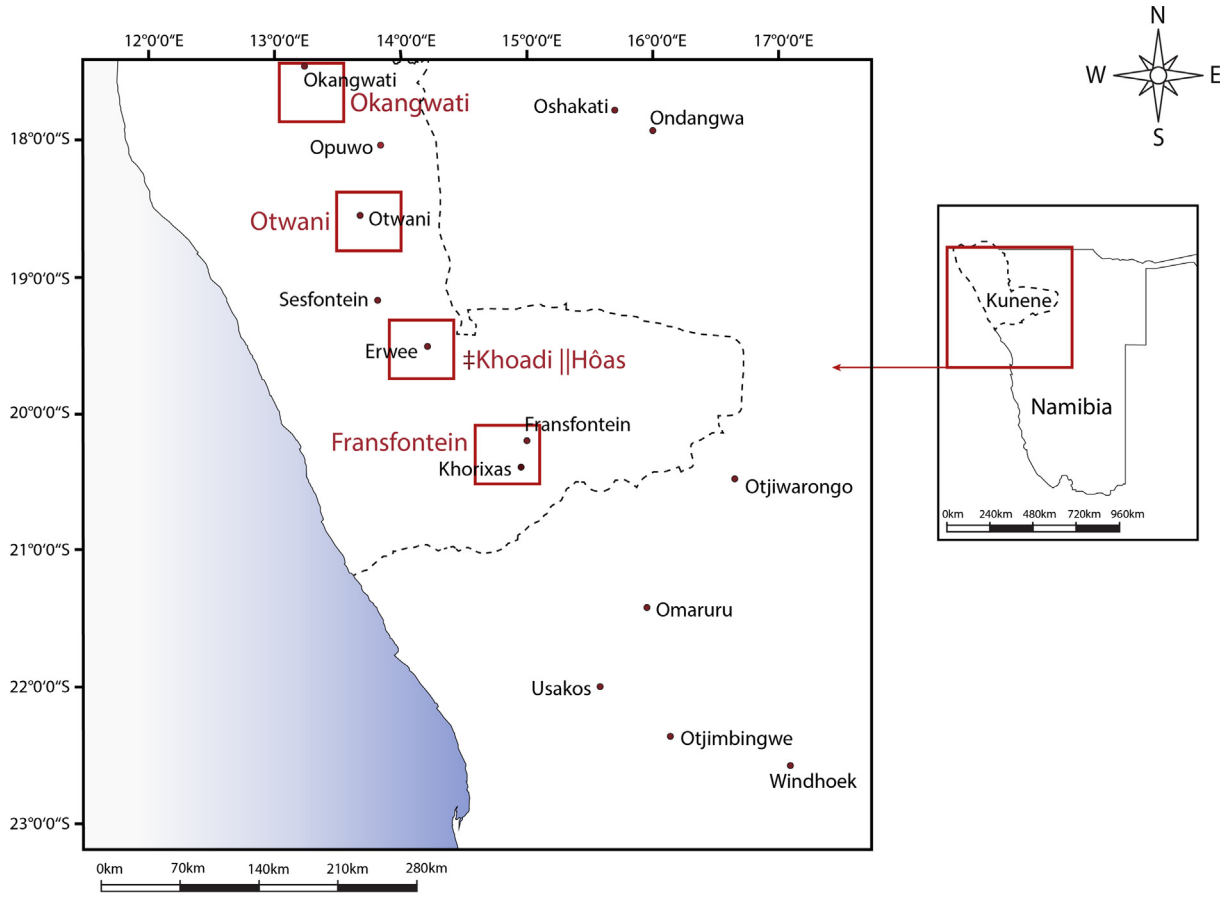

Fig. 1. Research areas in Kunene, northwestern Namibia.

and the newly formed Republic of South Africa began to establish its apartheid rule. Many of the environmental laws continued in place. While hunting restrictions were still only poorly enforced, the Odendaal Commission remarked in 1963 that all the so-called 'homeland' or 'native' territories still had large numbers of wildlife (Botha, 2005:186; Hinz, 2003).[10] The practice of poor enforcement did not change when the South West Africa administration under the jurisdiction of the colonial South African state established new governance structures in the 1960s, including the Damaraland second-tier government (Botha, 2005:187).

In 1967, the South West Africa administration commenced legal reform to give private farm owners, typically descendants of European settlers, the right to manage wildlife in a commercially viable manner (Botha, 2005). The multi-million rand trophy-hunting and safari tourism industry that emerged increased wildlife on commercial farms by 70% between 1972 and 1992 (Barnes and De Jager, 1996).

In contrast, wildlife diminished significantly in the communal areas including Damaraland. This decline can be attributed to a number of factors such as the availability of firearms provided by the South African Defence Force (SADF) during the liberation war, the proliferation of the black market for ivory, and a major drought in the 1980s. Moreover, colonial officers and SADF soldiers directly engaged in hunting for trophy, ivory and meat (Bollig and Olwage, 2016; Botha, 2005). Despite these well-documented causes, most people blamed the local population for depletion and loss, and marked self-sufficient hunting practices as poaching (Sullivan, 2002b).

At independence, there was an urgent need to address the injustices of the colonial administration. This included addressing the unequal opportunities in natural resource management between farmers on freehold and communal lands. To enable rural communities to profit from wildlife though market mechanisms and sale, the newly-elected government began to pass new environmental legislation (GRN, 1996). Inspired by the dominant CBNRM model, communities were given the opportunity to form 'communal conservancies' to share the benefits to be gained from managing wildlife successfully (Jones, 2010; Jones and Weaver, 2009). At the same time, the same legislation made it possible for private investors to access highly profitable tourist destinations which had formerly been beyond their reach.

Soon after the legislation that provided a legal framework for implementing CBNRM was passed in 1996, rural communities began to register communal conservancies with the Ministry of Environment and Tourism (MET). Requirements for the conservancy application include a list of people who are community members, a declaration of their goals and objectives, and a map of their geographic boundaries. Their plans also need to be discussed with communities bordering the proposed conservancy. Communal conservancies are governed by an elected committee consisting of a chairperson, a secretary and a treasurer, along with their respective deputies. Conservancies are obliged to have game management plans, to conduct annual general meetings, and to prepare financial reports (NACSO, 2015). These legal requirements demand a specific form of bureaucratic expertise which is provided by NGOs and gives them an active role in the governance process.

By 1998, three communal conservancies had been registered, including ǂKhoadi ||Hôas (Jones and Weaver, 2009). The formation of

[10] The Odendaal Commission, officially known as The Commission of Enquiry into South West Africa Affairs, was established in 1962 by the Republic of South Africa to formulate recommendations for the socio-political development of South West Africa.

ǂKhoadi ||Hôas made use of the existing organization structures of the Grootberg Farmer's Union, which had been in place since about 1990.[11] Since then, the number of conservancies increased by a factor of ten during the first decade, and after 20 years, 82 communal conservancies now cover about 20% of Namibia's land (NACSO, 2015).

In ecological terms, CBNRM in Namibia is a success. It is well documented that the number and diversity of wildlife have increased since the mid-1990s (Boudreaux and Nelson, 2011; Jones and Weaver, 2009; Mufune, 2015; Naidoo et al., 2011a; Naidoo et al., 2011b; Naidoo et al., 2016a, b). Elephant numbers have more than doubled, from under 10,000 in 1995 to at least 20,000 in 2012 at national level (Naidoo et al., 2016a,b). Unfortunately, the available figures are not disaggregated for the regional level. However, oral reports from ǂKhoadi ||Hôas in particular and Kunene in general confirm that there has been a marked increase in wildlife, especially elephants, during recent decades.

While it is difficult to single out any one explanation for the growth of the elephant population, the increase has been related by many scholars to the incentives created by the CBNRM programme and similar legislation (Berger, 2000; Boudreaux and Nelson, 2011; Jones and Weaver, 2009; Nuno, 2015). These incentives include participation and employment in activities that help in monitoring and reporting poaching, conserving habitats for wild animals, and reintroducing live animals into the conservancies. In addition to the spread of CBNRM, the withdrawal of the South African army, which killed large numbers of wildlife to eat, has also contributed significantly to the recovery. Regardless of the particular cause, today large elephant herds make the region, and in particular ǂKhoadi ||Hôas conservancy, extremely attractive for hunting and photo safari tourism.

4.2. Hunting and safari tourism in ǂKhoadi ||Hôas

The two main sources of income in the ǂKhoadi ||Hôas conservancy are trophy hunting and safari tourism. Trophy hunting is a lucrative industry and is based on a quota that is granted to the conservancy by the Ministry of Environment and Tourism (MET). International hunters pay about US$ 5,000 for an oryx hunt and US$ 28,000 for shooting an elephant (including costs of accommodation) to the private safari operator.[12,13] According to recent figures provided by Naidoo et al. (2016a: 635), conservancies receive on average US$ 13,296 for an elephant and US$ 274 for an oryx, which reflects the profit margins involved in the enterprises. Across all conservancies, elephant hunts make up more than fifty percent of the revenues.

In 2004 ǂKhoadi ||Hôas received a grant from the European Union to build a lodge and a campsite in order to develop facilities for hunting and safari tourism (Jones et al., 2015; Lapeyre, 2011).[14] The construction of the Grootberg Lodge and Hoada Campsite was completed in 2005, and the conservancy signed a joint venture contract with a private company (EcoLodgistix) to operate them.[15] In return, EcoLodgistix had to pay a proportion of the net turnover (15%) to the conservancy. The amount was meant to finance natural resource management by supporting the operation costs and paying for development projects. A few years after the lodge and campsite had begun operating, this 15% had rarely been paid (Lapeyre, 2011). Furthermore, the conservancy did not fully understand how profits and incomes were calculated and shared.

Table 1
Income of ǂKhoadi ǁHôas conservancy for 2014/2015.

Source of income	Amount (N$)	Amount (US$)[a]	Percent of total
Grootberg Lodge (rent)	466,648.32	30,075.50	55.6
Dividend from Grootberg Lodge	100,000.00	6,445.00	11.9
Hoada Campsite	30,000.00	1,933.50	3.6
Trophy hunting	122,567.62	7,899.50	14.6
Shoot and sell	103,000.00	6,638.35	12.3
Others	16,876.47	1,087.70	2.0
Total	839,092.41	54,079.51	100.0

[a] Forex Exchange rate at 31/12/2015. One Namibia dollar is equivalent to US$ 0.06445.

This situation thus led to a conflict between the conservancy and EcoLodgistix in 2008. In the following years, a new business model was negotiated and adopted.[16] In this model, the conservancy continues to own the lodge. In addition, it formed Grootberg Pty, a private company.[17] The private company has full ownership of the tourism business and bears its costs. The management has been outsourced to yet another private company (Journeys Namibia), which receives a monthly fee.[18] To avoid conflict, a joint management committee was formed.

Conservancy officials report that since then, the income of ǂKhoadi ||Hôas has improved. In the year 2014/2015, the conservancy earned US$ 54,079 from the rent they received from the lodge contributing to about half of the total income (see Table 1). Hunting for trophy and sale constitute another 26%.[19] This makes ǂKhoadi ||Hôas one of the few conservancies with a stable income and self-sufficient, according to one senior NACSO official.[20]

These numbers may seem impressive at first sight. However, a simple and necessarily superficial calculation helps to put them into perspective. The lodge has 16 rooms, which cost US$ 244 per night to rent.[21] If we assume that the lodge is only half booked year-round, this would result in a total turnover of more than US$ 700,000. Of this, according to our calculations, about 20% stays in the community, including the money paid to the lodge and the salaries the employees receive. This proportion almost matches the figures reported by a recent NACSO evaluation, which found that about 16% of the income generated by CBNRM remained in the respective communities (NACSO, 2015).

Nationally, employment is the most common benefit conservancies bring to communities. ǂKhoadi ||Hôas conservancy and its enterprises employ 67 people (most of whom are between 25 and 40 years old) from the local community. This accounts for about 1.6% of the total population, which is below national figures (Naidoo et al., 2016b). The average wage is US$ 125 per month including food rations (min. US$ 50; max. US$ 260), which is above the non-contributory state pension of US$ 70.

To explore how this income is shared in the community, we conducted a monthly household census over a six-month period. On a cumulative count (n = 85), 57.6% of the households received some indirect support, mostly in the form of small portions of sugar or maize

[11] This partly explains why ǂKhoadi ||Hôas has been one of the first conservancies in Namibia.

[12] https://www.discountafricanhunts.com, accessed on 06/03/2018.

[13] Those prices include the trophy fee as well as accommodation, transport, and cost for the hunter.

[14] The grant was made available through the Namibia Tourism Development Programme (NTDP).

[15] In 2015 the conservancy (re)opened a second lodge, Hobatere, on land which was granted to the ǂKhoadi ||Hôas in 2008. Since the lodge had not yet generated any income at the time of conducting the fieldwork, it has been largely excluded from the analysis. It is only mentioned in relation to costs for renovation for the year 2014/15.

[16] The new model was the result of technical advice from an expert on private sector tourism from the US attached to WWF-Namibia.

[17] PTY stands for 'proprietary company', a business structure under Namibian law.

[18] Some of the owners of the EcoLodgistix were not happy with the economic viability of the new model and opted not to sign the new contract. Two of the directors formed a new company – Journeys Namibia – which signed the contract with the conservancy.

[19] This number closely matches the figures compiled by Bollig (2016:792) for a larger number of conservancies.

[20] The situation of the lodge changed again when Conservation Capital started its investment. However, when the bulk of the fieldwork was carried out in 2015, the consequences of this investment could not be predicted (www.conservation-capital.com, accessed on 07/03/2018).

[21] http://grootberg.com, accessed on 30/06/2017, converted into US$ with the exchange rate of the day.

meal. At the same time, money was almost never shared and people complained that the quantities of food were much too small to make a substantial contribution to their lives.

Part of the conservancy's programme involves training local employees. The lodge employs young people from the community with little experience in the tourism sector. Most do not have an education beyond junior secondary school. Thus, on-the-job training is a way of building a human resource capacity for community-based tourism and conservation (Kiaka, 2018). Some of the training, especially for conservancy staff, is conducted by NGOs, including the Namibia Nature Foundation (NNF) and World Wide Fund For Nature (WWF) Namibia. However, among key conservancy and associate staff, the training often does not lead to better salaries, and thus trained employees often seek more lucrative employment elsewhere (Stamm, 2017).

While the conservancy provided jobs and training to some, only 6.4% of the revenues is spent on community benefits and 1.3% on income-generating projects from which a larger number of people profit directly. These figures match the findings of Silva and Mosimane (2012) who have shown that conservancies deliver direct economic benefits to those employed but that indirect benefits are typically low. This distribution is also supported by the national figures, which show that, in relative terms, the largest part of the revenue (84%) does not stay at the site but goes to enterprises in Windhoek or abroad and to the state (own calculations based on NACSO, 2015).

All in all, these findings reveal that the conservancy has made ǂKhoadi ǁHôas a better place for elephants as well as for some people. Some early studies reported that initially conservancies contributed to a feeling of pride and ownership, along with a desire to enable one's children to live alongside wild animals (Naidoo et al., 2011b: 450; Suich, 2010). Today, the situation has changed dramatically and in hindsight these first reports reflect wishful thinking on the part of the local population involved. The immense distributional discrepancy is experienced by almost all inhabitants, as the following quote from our conversations with Dantago reveals:

> The elephant is only useful to the white tourist and maybe those who work in the lodge. Maybe they are happy and enjoy the benefits. For us, we suffer so that they can enjoy. We are a slave of the conservancy, our progress is held hostage in our land.[22]

A discussion with an elderly pastoralist in ǂKhoadi ǁHôas reveals how bitterly people perceive the unequal distribution of costs and benefits. Dantago makes explicit reference to the injustices of the (white) colonial past and places tourism in direct line with the apartheid regime. While tourists and those employed in the lodge receive some rewards, in post-colonial Namibia, people have, according to Dantago, become 'slaves of the conservancy' and hostages in their own land. The frustration and powerlessness which is expressed in Dantago's view have much to do with water and its use.

5. Governing water

5.1. Community-based water management

The main source of water in arid northwestern Namibia is groundwater accessed through boreholes and wells. The boreholes are fitted with various pumps including wind-powered pumps, solar pumps, hand pumps, and diesel engine pumps. By and large, diesel engine pumps dominate, and the costs of running these include buying diesel, purchasing engine oil and filters, and paying for repairs. Until the 1990s, within the *bantustans* in which indigenous people were resettled to implement the Odendaal plan (Sullivan, 1996:47), these costs were largely borne by the South West Africa administration under the jurisdiction of the colonial South African state (Sullivan, 1996:47). This implies that water was, in monetary terms, for the most part free for pastoral communities.

In the 1990s, the government adopted a community-based water management approach (CBWM) and aimed at shifting the cost of running water pumps to the local communities (Heyns, 2005; Schnegg, 2016b; Schnegg et al., 2016). This meant that new institutional solutions, including cost-sharing arrangements, had to be developed to ensure the supply of water and the maintenance of its infrastructure. In the process, water changed from being free to having an economic value and a cost.

As in the case of the communal conservancies, a blueprint was developed by the government's Directorate of Rural Water Supply (DRWS) to fast-track the institutional development. Water Point Associations (WPA) were proposed and formed. A WPA is an association of people who use water from a particular water point. The association develops a constitution that grants it legal status and outlines water management plans that specify rules of sharing water-related costs (Falk et al., 2009; Schnegg, 2016b; Schnegg et al., 2016).

The cost-sharing arrangement proposed and initially implemented by the government and NGOs was a proportional regime. The plan was that households would pay for water according to the number of livestock units they owned and according to their water usage. To implement this policy, government and contracted NGO officials visited communities to hold meetings to sensitize and train the communities in the new management approach for communal water. During this process communities developed water management plans that contained, among other things, payment rules (Schnegg, 2016b). Our data show that nearly all farms and villages in Kunene valued costs similarly. For example, in most communities in the ǂKhoadi ǁHôas conservancy, water costs were calculated at N$ 0.50 per head of small stock (sheep and goat) and N$ 1.50 per head of large stock (cattle, horse, donkey, and mule) at the time of conducting the research (Kiaka, 2018).[23] In addition, in some communities households pay a comparably small fee for human consumption. The income is then used to purchase diesel and engine oil. To put effect to this agreement all members have to sign the water management plans and deposit a copy with the local office of the state department in charge of rural water supply.

5.2. Sharing the costs of water

After following the new rules for some time, people started to deviate from the initial agreement. In fact, our ethnography reveals that the rules were neglected in most communities, sometimes as soon as three months after signing the water point management plan. Data collected in 56 communities through the entire Kunene region show that only 44.6% of the studied communities have continued with the proportional cost-sharing rule. A further 12.5% of the communities in the study altered the rules so that the rich would pay more than the poor households, but not as much as they should. In 42.9% of the communities the proportional sharing rule promoted by the state and NGOs was never practised at all, and was replaced instead by an institution that requires equal payment from all households. We refer to this arrangement, in which rich and poor cattle owners pay the same, as a flat-rate rule (Schnegg, 2016b).

There are four factors that help to explain this institutional change (Schnegg, 2016b; Schnegg et al., 2016): Firstly, there are the high transaction costs that are involved in the implementation of the proportional rule. Moreover, this rule requires that the communities know the number of livestock owned by each household. Relatively high costs are also associated with collecting the money and keeping it to buy diesel. This requires trust in individuals and explains, for example, why most communities within the ǂKhoadi ǁHôas conservancy prefer

[22] Remarks from Dantago, an elderly pastoralist in ǂKhoadi ǁHôas conservancy, 22/08/2015.

[23] About US$ 0.1 and 0.033, exchange rate at 31/12/2015.

members to bring diesel rather than contribute money (Schnegg, 2016b).

Secondly, water politics also play a role in water management as wealth may be used as a tool to bargain for power and cost-sharing preferences. Economic wealth is largely stored and represented in the number of livestock owned, especially cattle. There is a skewed distribution of economic wealth in the region (Greiner, 2011; Pauli, 2011). In most cases, richer households favour a flat rate over the proportional regime, since the former requires them to pay less in absolute terms (Bollig and Menestrey Schwieger, 2014; Schnegg, 2016b). Richer individuals often argue that although they have more livestock and, according to the proportional rule, should pay more, they also support the community in a number of different ways (sharing milk, supporting funerals, and offering lifts in their cars) for which they receive no payment. Moreover, the wealthy are usually, but not always, older individuals that demand respect from the community. Their membership in relatively richer households enables them to pressure their poorer co-residents and thereby circumvent the proportionate payment rule by successfully bargaining for a flat-rate regime.

Thirdly, water management overlaps with other social fields of sharing (Schnegg, 2016a; Schnegg, 2018). Social and cultural embeddedness of institutions in pastoral communities in the Kunene region and elsewhere is well documented (Bollig, 2000; Lesorogol, 2008; Schnegg and Bollig, 2016). Communities share kinship, generations, gender structure, and social interactions, producing a web of institutions that govern human conduct. As a result of this *institutional multiplexity* (Schnegg, 2018), water-sharing becomes part of the larger domain of community interactions, which hinders the application of specific 'accounting rules' for a single domain (Schnegg and Linke, 2015).

Fourthly, our data suggest that those communities in the research study that have continued to practise the proportional rule have experienced a stronger presence of and intervention by external actors, that is, state representatives and NGOs. In contrast, communities with weaker intervention by the state and NGOs largely practise the flat-rate rule (Schnegg, 2016b). We therefore assume that in the long run, if the state and NGOs completely withdraw from water management in pastoral communities, a flat-rate regime will prevail throughout all communities. However, wherever the flat rate is applied, poor households pay more both in relative and absolute terms, thus financially subsidizing the water consumption of the rich (Schnegg, 2016b).

6. Water and wildlife intertwined

Kunene is home to 36 communal conservancies, which have contributed to the recovery of wildlife, including the desert elephant. As a consequence, an increasing number of elephants lives in or passes through ǂKhoadi ǁHôas, where they drink water from the communal water points, incurring costs that must be paid. The increased presence of elephants in the region has favoured trophy hunting and safari tourism, which generate cash and non-cash income as we have seen. However, there is another side to the coin, as the following observation reveals:

> One evening in late September 2014, I was sitting with my neighbour in front of our house. Built from wooden sticks and mud alone, it provides some shelter and shade. While chatting about this and that, we noticed a suspicious sound from afar: *crack, crack, crack*, like a child breaking a stick. We stopped talking, concentrating to better recognize and understand the sound. Then, Pete said: 'Michael, those are elephants'. Now I could also tell: they were breaking the trees beside the river to provide leaves for their calves. We were not the only ones who had heard the sound; quickly the community became hectic, and people started doing what they had been prepared to do: lighting fires and making noise with empty drums and other metals. Our efforts were to no avail, and the cracking sounds came closer and closer. We were scared when we finally went into the house, from where we could see a herd of elephants approaching. They were heading towards the water point, smoothly, in no hurry, breaking trees and scraping their skin on others. After an hour or so, it became quiet again and people found the courage to go out and investigate. We all met and followed the footprints in the sand, counting the number of animals that had been here. When we came to the borehole we saw how thirsty they had been. There was no water left. While they had not destroyed the infrastructure, one of my neighbours commented, 'The elephant is a parasite who sucks our sweat. We buy the diesel, pump water and he drinks yet we gain nothing from him'. The next morning, there was no diesel left and no one in the community had cash to buy more. Thus, when the cattle came to drink, they did not find any water. In large numbers they stood patiently in front of the empty trough, expecting to be watered. The phone call to the conservancy manager did not resolve the issue, and Pete complained 'He [the elephant] is a devil and enemy of progress. The conservancy and the government are not helping us from the elephant. I pray to God himself to deliver us from elephants' (Fieldnote, MS 09/2014).

The vignette describes a particular incident, and yet it points to the larger picture. The presence of elephants is frequently experienced; it is feared and is part of the daily lives in the communities that were studied. With increasing elephant populations, human–wildlife interactions have increased, as the interview with Joseph, a relatively well-off pastoralist, reveals:

> Joseph: In the past, the elephants would not come to our houses. They would stay far away near the rivers where they could find water all year-round. However, this has changed. They are so many by now and during the dry months (MS: September-November), before the rain comes, they now come to our houses and drink the water from our tanks.
>
> Michael: Do they destroy things?
>
> Joseph: Oh yes, some of them are very aggressive, especially if they see a white car like yours. The elephant is a destroyer. You must be careful. The people from nature conservation also drive white cars and sometimes they come to chase the elephants with guns. This has made them very aggressive compared to how they were in the past. The elephant is a very intelligent animal. He remembers for a long time.[24]

To better understand the impact of growing elephant populations on water management in ǂKhoadi ǁHôas, we conducted a survey in 20 villages between July 2015 and January 2016.[25] Almost half of the respondents ($n = 48$) reported that elephants had come to their water points at least once a month when they need to drink water. Damage cause by the elephants varied from place to place. However, the diesel to pump the water is supplied by community members. While an elephant needs about 150 L of water a day, they typically drink only twice a week. This means that when they come to the wells, they drink up to 600 L each, which is about as much as 25 head of cattle consume. Communities struggle to bear these costs and, in a flat-rate institutional regime, those with the least resources are unfairly burdened (Linke, 2017). Moreover, elephants often cause damage to the water supply infrastructure as well. If the elephants do not find water at the water points because communities may lack money to pump water at given times, the elephants often cause damage to the borehole and the equipment in frustration, thus leading to broken equipment and a borehole that can no longer be used by the community until it is repaired.

[24] Interview with Joseph in Fransfontein area 9/2014.

[25] Out of the 20 communities, interviews could not be completed in one community because all four household heads were not in permanent residence there.

To cover the cost of such damages, the conservancy has established an elephant-damage self-reliance compensation scheme, and allocates about US$ 1,150 per year to it to cover damages in all villages. For the villages to benefit from this scheme, farmers have to report incidences of elephants drinking at their wells to the conservancy. However, this compensation is not sufficient for those in need. Between 2011 and 2015, an annual average of 40 incidents of infrastructure damage by elephants was reported in ǂKhoadi ǁHôas. Namibia Nature Foundation (NNF) has estimated that each single incident of human–wildlife conflict costs on average about US$ 115 (Brown, 2011). Therefore, the average cost of elephant damage is at least US$ 4,600 a year (40 * 115). It is easy to see that the amount allocated, US$ 1,150, is far too small to compensate for the costs incurred.

Against this background, it is thus not surprising to see that many people are not compensated, and perceive this situation to be extremely unfair (Silva and Mosimane, 2012). The following story makes this clear. After one of those nights when the elephants had come to our place, we asked Paulus if they could report the damage to the conservancy office to seek a diesel compensation. His verbal and non-verbal response was loaded with grief and despair:

> They say we should live with elephants because they are good for tourists to see and bring the money. But even the money cannot buy diesel to pump water for the elephants. But they just run away from taking care of the water costs for their elephants and leave us to struggle with them. So there is no need to report. I can't waste my time because they will do nothing. I stopped reporting to them long time ago.[26]

The lack of (real and perceived) distributional justice has immediate consequences for procedural and recognition (in)justices as we will see below.

7. Environmental justice

In the introduction, we proposed environmental justice as a theoretical framework with three dimensions: distribution, recognition, and procedures. So far, our analysis has focused on distribution and explored the differences in who receives and who pays what. As we shall see, the three dimensions are linked in multiple ways.

Distribution affects recognition. In the wider sense, recognition justice refers to the appreciation of distinct worldviews and concerns. As we have seen, the conservancy has income to share. The benefit-sharing agreement prioritizes some aspects while it allocates less than 10% directly to the communities. Damage caused by wildlife has to be paid out of this ten percent. Channelling 90% of the money in specific ways means that many local needs are not recognized or met, as the following conversation with Gomes reveals:

> The conservancy is ours and not ours at the same time. It is ours because this is our land, our traditional land for ǀGaiodaman [traditional] authority. We have our chief, Max Haraseb. So it is our land. But the office in ǁ*Kai*-ǀ*uis* [Grootberg] is not ours. It is for tourists and those who want elephants to be here and destroy our things. They don't listen to us however much we struggle to tell them our problems with elephants and lions that destroy and eat our things. When you speak in meetings, they say 'we will look into that'. But they don't do anything to help. I struggle to get a little money which I add to my pension, and then I use it to buy diesel. But then the elephants come to drink the water. Then the conservancy does not give diesel for that. And they know it is their elephants. Can I praise the conservancy? Let the tourists who come in cars to see the elephant praise the elephants.[27]

This explanation by Gomes shows that he does not recognize the conservancy as his representative because it does not acknowledge his needs, especially to pay for the water that the elephants drink. The help he expects but does not receive translates into a sense of alienation from the conservancy and its aims and goals to protect and market elephants to the tourism industry. As a result he, refuses to see any value in the elephants.

Moreover, CBNRM explicitly formulates an *alternative* to existing livelihoods and lifeworlds. According to CBNRM, local hunters are 'poachers and thieves of common property' and pastoralist are people who are 'wasting land' (Nuding, 2002:204–205). In terms of this definition, CBNRM devalues lifeworlds and worldviews that have been shaped over centuries through specific ways of being. Thus, right from the start, CBNRM fails to recognize that people may have other ways of being-in-the-world than what the modernization paradigm of CBNRM implies (Sullivan, 2002b).

Distributional injustice affects procedures as well. As the explanations of Pete and Gomes already reveal, when people feel that their needs are not being recognized, they stop participating and making claims. Procedural justice refers to the fact that people can and do actively get involved in decision-making. In ǂKhoadi ǁHôas, in relation to both water and wildlife management, people often do not actively get involved. As the voices we have quoted state, many inhabitants are frustrated with the conservancy, the 'new' water management, and what they refer to as the 'government' and its policies in general. This is especially evident at the annual conservancy meetings where collective decisions are supposedly made. While most livestock owners are elderly men, only a few of them attend. As one of them explained:

> Who will listen to me when I give my opinion about our problems with the elephants and lions and jackals? Look, the conservancy did not start yesterday. [...]. This conservancy was started in the 1990s. When it was being introduced, we refused to have dangerous elephants here. We told them we accept kudu and springbok because they are just like our cattle and goats. But not elephants. They promised many good things but I have not seen them. I used to attend the meetings at Grootberg, those days when I was easily fooled. I would speak my mind. Others would speak their minds about elephants and jackals and hyenas. The people would say 'Yes! Yes!' But later, nothing happens. [...]. We told them to give us diesel to pump the water, not for our cattle but for their elephants. They said money is not enough. [...]. Then I said that I don't have anything to do in those meetings. If we cannot decide about what is killing us, then why should we meet? We have become slaves of the conservancy, and as slaves we have to free ourselves. I am not saying the conservancy is all bad. I am saying the dangerous animals must be removed. [...]. In the past the meeting hall would be full of people, both young and pensioners. Today, not many attend. Go and ask them why they did not attend. They will tell you 'I was busy. I was sick. I was travelling'. No, they just don't want to tell you that they are tired of suffering and lies. Maybe one day no one will attend the meetings, and they will listen.[28]

This angry monologue reveals that Gariseb sees no advantage in involving himself with a conservancy that does not recognize his needs and does not listen to his complaints. According to one elderly women, those who still come to meetings mostly 'appreciate the free meal that the conservancy provides'.[29] The link between wildlife management and participation is confirmed by Silva and Mosimane (2012), who found that opposition to wildlife conservation was one reason for not pursuing membership in a conservancy. Equally, Mufune reports that participation of members is often comparably poor and that people feel that their inputs on decisions do not matter (Mufune, 2015: 132). With

[26] Interview with Paulus in ǂKhoadi ǁHôas area, 12/08/2015.
[27] Interview with Gomes in ǂKhoadi ǁHôas, 24/06/2015.
[28] Interview with Gariseb in ǂKhoadi ǁHôas, 03/08/2015.
[29] Interview with Katrina in ǂKhoadi ǁHôas, 04/08/2015.

regard to water management, the disappointment translates to a lack of participation as well, and most committees find it extremely difficult to find members willing to serve on the committee. As people complained, the more they get involved in committees the more they place themselves at the centre of conflicts with many social costs involved for them. In both cases – regarding water and wildlife – the withdrawal of members from participating in decision making can be interpreted as a form of resistance, a weapon of the weak (Scott, 1985). Beyond that, and other examples that Sullivan (2002a, b, 2003) reported for the early years, we find comparably little active opposition to the new policies. For conservancies this may have something to do with the fact that people have high expectations of the economic benefits in the founding years (Silva and Motzer, 2015). It is only when the elephants arrive and the problems become visible that they change their minds (Silva and Mosimane, 2012).

Thus, considering all three dimensions of environmental justice, our analysis reveals that a distribution which is perceived to be extremely unfair has direct effects on both recognition and procedural aspects. As the more marginalized part of the population withdraws, it becomes even more unlikely that their voices and needs will be heard. In the end, this is likely to worsen their position in relation to distribution even more.

8. Discussion and conclusion

CBNRM claims to foster wellbeing, justice, and ecological sustainability. With regard to the ecology, the conservancy programme is a success. Both the numbers and diversity of wildlife have increased during the last two decades due to the influence of CBNRM (Boudreaux and Nelson, 2011; Jones and Weaver, 2009; Mufune, 2015; Naidoo et al., 2011a; Naidoo et al., 2011b; Naidoo et al., 2016a,b).

The socio-economic consequences are more difficult to assess. Our findings point in different directions. On the one hand, we have found that a number of people are benefitting from the conservancy through employment. This finding is in line with studies which have demonstrated that conservancies bring money to Namibia's rural hinterlands. For example, Bandyopadhyay and colleagues have found that conservancies can have a lasting impact on household welfare (Bandyopadhyay et al., 2009). Equally, Naidoo and colleagues have shown that tourism and hunting both make significant contributions to the economic welfare of conservancies. As in our case, the former is weighted toward employment and wages, and the latter toward governance structures and management costs (Naidoo et al., 2016a). Similarly, Jones and Weaver (2009) and Nuulimba and Taylor (2015) have reported that with the conservancy programme livestock numbers and economic prosperity increase. In a similar vein, the analyses of Silva and Mosimane (2012), Silva and Motzer (2015), and Mufune (2015) suggest that conservancy membership brings some economic benefits to households. All in all, this points to economic success.

On the other hand, we have pointed out some of the costs that accompany the ecological success. Similarly to our study, other studies have reported an increasing number of human–wildlife conflicts (Rust, 2017; Rust and Marker, 2013; Silva and Mosimane, 2012). Where human–wildlife conflicts increase, the distributional effects are often perceived to be unfair (Silva and Mosimane, 2012). Moreover, Mosimane and Silva (2015) have shown that many conservancies do not develop adequate benefit-sharing mechanisms, which hinders their long-term success. In a similar vein, a recent study has shown that although social sustainability of conservancies is generally good, the financial sustainability is problematic – especially for the newer conservancies (Humavindu and Stage, 2015). Furthermore, Silva and Motzer (2015) have demonstrated that many residents feel that the conservancy operates unfairly, mainly through an uneven disribution of benefits and elite capture. According to Bollig (2016), the distribution of benefits from these new commons is still problematic. And finally, Riehl et al. (2015) have reported that conservancies have positive effects on health, although they result in lower school attendance.

It thus appears that some view the glass as half full and others as half empty. Conservancies have resulted in both positive and negative effects (Bollig, 2016). The findings presented in this article confirm this picture. While money is being earned, only some people in ǂKhoadi ǁHôas are benefitting from it. As we have seen, revenues largely remain with the national and international safari operators and investors.

The skewed distribution of benefits is also a consequence of the two economic models CBNRM combines. CBNRM creates and maintains a commodity to sell (Sullivan, 2002a,b, 2006, 2017). This commodity, wildlife, can only be sold to safari, photo and hunting tourism, when it is found in the savannah landscape. An elephant in a zoo or another man-made environment has a different value (Garland, 2008). As Garland (2008) has shown so convincingly, this duality of wildlife and landscapes is deeply ingrained in the European imaginaries of the African continent. To transform wildlife into global commodities, CBNRM creates 'new' commons and passes some rights, including possibilities for profit, to local user groups. At the same time, it opens the same resources to exploitation through private investment (Bollig, 2016; Bollig and Lesorogol, 2016; Sullivan, 2006, 2017). Supporters of CBNRM often praise this alliance as a win-win situation for both. However, and as our data reveal, the parties involved do not win in the same way. Critics of the system point out the dangers inherent in opening up the commons to private investment. The fact that ǂKhoadi ǁHôas has shifted towards a Pty business model underpins these concerns about the creeping advances of capitalistic structures, practice, and worldviews through CBNRM and gives rise to worries about the accompanying effects. These effects include risks that arise from the fact that the Grootberg Pty now has to pay a management fee to Journeys Namibia independent of the booking of the lodge, which thus affects its own income. This makes Grootberg Pty and the conservancy much more vulnerable to fluctuations in the highly volatile tourism market (Jones et al., 2015).

A shortcoming in the CBNRM literature is that studies tend to isolate one policy, mostly conservancies. However, as we have seen, for local communities this is unrealistic since wildlife, water, and many other resources are intertwined in daily life (Rieprich and Schnegg, 2015; Schnegg et al., 2014). Elephants drink large amounts of water at the same wells people and livestock use. This implies that the true social-ecological consequences of CBNRM can only be assessed if the various policies are analysed together.

The net cost of water includes the cost of the water that elephants drink and the damage they cause. The current institutional regime regarding water points produces a higher economic burden for the poor. These institutions emerge where the state and NGO are distantly involved. Only if they retain an active role are governance rules maintained whereby the poor are not required to pay significantly more. Thus, while the government can be held responsible for making communities pay for water, it can hardly be blamed for the distributional injustice which takes place in local power dynamics. Since the government strongly supports pay-per-use, distributional injustices cannot be blamed on the government per se. However, ultimately, in many communities the poor not only subsidize the water consumption of those who are economically better off, but also pay for water for elephant conservation and thus also for tourism. At the same time, the pastoralists rarely benefit from employment or from tourism. Hence, if the current conditions persist, the poor will remain poor at the expense of the rich, conservation, and tourism – a scenario which, at least partly, contradicts the vision of CBNRM.

Justice does not necessarily mean equality. Even if people receive different shares and pay varied costs, this could be considered fair. However, the frequent conflicts and complaints reveal that people are not satisfied at all. With lodges and tourists in constant sight, people are complaining bitterly that the great majority of them do not benefit enough from the conservancy. As we have seen, it is hard to find someone who defends CBNRM and claims that the conservancy has

made living with the environment just and fair. Some even claim that they have become slaves. If these conditions persist, the combined effects of water and wildlife policies are likely to continue to lead to better resource management but skewed economic impoverishment. In such a case, many people will continue to assert that their life was harsh but fine before 'the government decided that they would have to live with the elephants again'.[30]

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