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CHAPTER 10

Social-ecological Change and Institutional Development in a Pastoral Community in North-western Namibia

Michael Bollig

Changing Land Tenure in North-western Namibia

Pastoral nomadism in north-western Namibia has been depicted as well-adapted to the hazards of an arid environment (Malan 1972, 1995; Steyn 1977). Society and culture have been often interpreted as being determined by the vicissitudes of seasonal and inter-annual resource scarcity.¹ Drought is generally conceptualised as the major risk within this semi-arid environment (Malan 1995). However, accounts which argue this glance over the fact that human–environment relations in north-west Namibia have changed rapidly throughout the past one hundred years due to governmental measures. Herding in north-western Namibia was formed by and impacted on by the political formation constituting the segregationist South African state until the 1990s. The colonial encapsulation of the pastoral community in the 1920s and 1930s starkly diminished the role of trade and exchange with neighbouring communities but apparently led to a thorough pastoralisation of north-western Namibia's population (Bollig 1998a, 1998b). The heavy-handed control of pastoral mobility conditioned early colonial land-use patterns significantly (Bollig 1998b; van Wolputte 2004). The pastoral land-use pattern which is nowadays seen as the traditional way of Himba pastoralism came into being only in the 1960s when a great number of newly drilled boreholes enabled the expansion of pastoralism and gardening.

A Short Note on Fieldwork

Between 1994 and 1996 I gathered information on pasture management among the Himba between Okangwati and the Kunene River. The management of common pool resources seemed to be fairly settled and successful at this time. This was not only my impression but also that of other specialists working in the wider

area (Behnke 1998a; 1998b: 23; Schulte 2002: 101). I described Himba coping mechanisms as traditional and long-lasting (Bollig 1997). In 2004/5 and 2009 I restudied the communal management of natural resources, and to my astonishment not much of the stability I had observed a decade earlier had remained. Uncontrolled access to pasture, pasture degradation and the assumed propensity of the government to intervene in grazing matters were listed as major risks by local herders. In-depth research on the history of resource management showed that the 'resilient' system of resource tenure and risk management I had observed in the mid 1990s and which informants had dubbed as 'traditional' had only existed for a few decades. What I had perceived as a traditional and successful state of common pool resource management now seemed to be a transient phase of stability within a larger sequence of social-ecological change characterised by ruptures as much as by phases of continuity.² The data analysed in this contribution come from archival research and fieldwork carried out between 1994 and 2009 (Bollig 2006).

Land Tenure and Mobility before the 1950s

The pre-1950 system of grazing rotation and land tenure was strikingly dissimilar to the system observed in the 1990s, as interviews conducted on the change of settlement patterns all over the northern Kunene Region showed: livestock camps moved out to graze distant pastures during the rainy season (and not during the dry season as today) when pans and other seasonal water sources offered enough water. Cattle grazed in orbits around these seasonal pools and once these rain-dependent water resources fell dry, the mobile cattle camps had to retreat to settlements near permanent water along rivers and permanent wells. In the Omuramba area (Figure 10.1), households from Ombuku River migrated to Omuramba with their large cattle herds during the rainy season and on to Ondova with their oxen herds.

Once the water sources in these areas had dried up they returned to the Ombuku River, where water could easily be found in the river's sandy deposits. The group of users of specific resources was clearly defined. Households held tenure rights in specific places that had permanent water. Large tracts of land were not used at all.

Places with plentiful permanent water sources were often dominated by powerful leaders. Their power rested on their wealth in cattle, their possession of guns, the number of their clients and their claim to land. These pastoral big men acted within an economy in which many still subsisted partially on small stock only or on combinations of small-stock husbandry and foraging. Scientists and administrators travelling the region in the late 1910s and early 1920s depicted the population as small stock breeders and emphasised foraging strategies (Kuntz 1912; Hartmann 1941: 32).³ Pastoral *ovabona* also maintained gardens to sustain their households. Vedder met the local leader Tjongoha at Kaoko Otavi's permanent well and reports that Tjongoha was an acknowledged and wealthy leader in

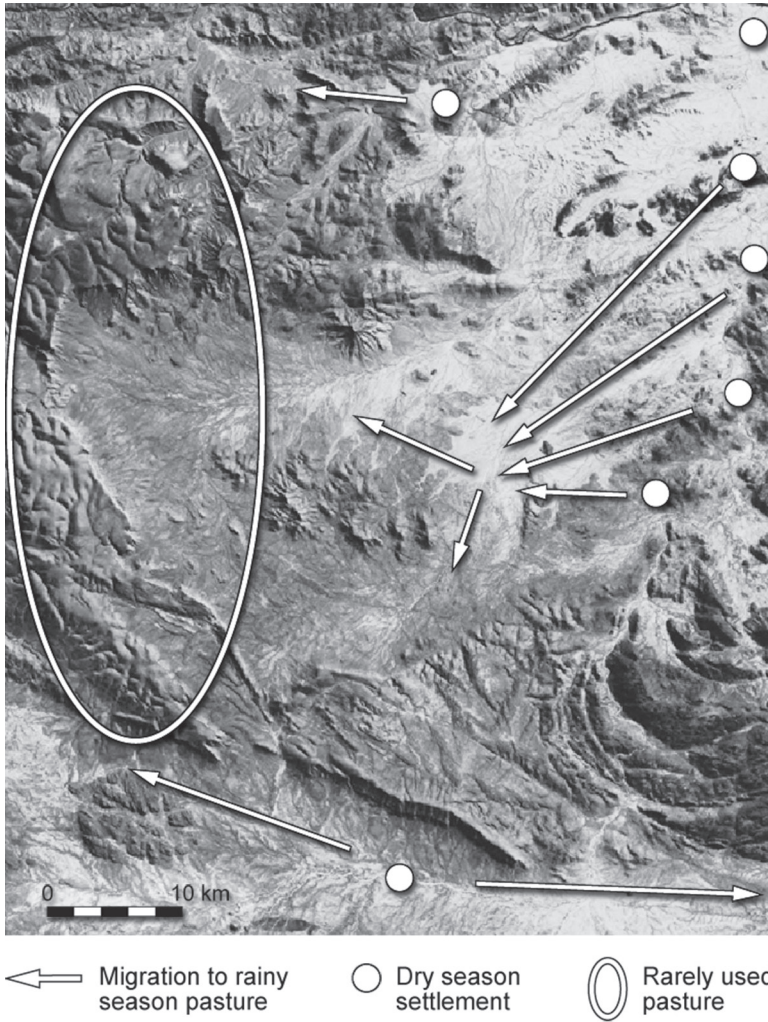


Figure 10.1: Map of pastoral tenure and mobility in wider Omuramba-Epupa before 1960.

the environs of the place. He addresses him as the ‘owner’ of the affluent Kaoko Otavi well and mentions that he borrowed cattle from the ‘king’ of the neighbouring Ovambo polity, Uukwaludhi.⁴ Big men migrating into the Kaokoveld either from Angola or from the settler frontier in the Kamanjab/Outjo region targeted permanent water points in the Kaokoveld to settle there. Habitually, an acknowledged leader was surrounded by relatives and clients. Leaders mentioned in oral traditions and archival sources for the 1920s and 1930s typically had either been mercenary leaders in Portuguese Angola, had been engaged in the Portuguese colonial administration in other ways (such as Adrian Karipose), had close contact with the leading clique in neighbouring Sesfontein (Kakurukouye,

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for example), or originated from prominent Herero families fleeing the genocidal war of 1904 to 1907. Gaerdes gives an account of a visit to Vita Tom's settlement in the early 1920s (see K'Ozombaze 1970): he describes lush gardens in the surroundings of the settlement and hints at numerous horses. Leaders competed for the better wells in the area, sometimes violently and sometimes in battles of words and through intrigues in which they tried to involve the colonial administration from the late 1910s onwards (Rizzo 2007).⁵

I will shortly address salient features of the pre-1950s common pasture management system, which I reconstructed mainly on the basis of oral evidence: Households 'owned' specific places and a clearly defined and numerically small number of households managed pastures together. The heads of these place-owning households were addressed as 'owners of the earth/land' (*oveni vehi*, pl.; *omuni wehi*, sing). The concept *omuni wehi* is of old Bantu stock and stresses the ritual affiliation of a senior man to a place. An *omuni wehi* is not necessarily rich in livestock and his ritual affiliation does not provide him with exclusive access rights. While he should be asked for the permission to settle by new-comers, he can rarely deny such a quest in a straightforward manner. It is suggested however, that his ritual power provides those living in the place with ancestral blessings and diverts hazards from their livelihood. The more affluent water points were usually also associated with a big man (*omuhona*, sing.; *ovahona*, pl.). The term *omuhona/ovahona* denotes a person who is wealthy and who wields power through his wealth in livestock, clients and possibly weapons. The typical *omuhona* is also a vociferous and gifted speaker at public meetings.⁶ While the access rights of *oveni vehi* to land were mainly based on ancestral beliefs, ritual linkages of living household members to ancestral graves and tied to specific places, the access rights of *ovahona* were based on wealth and power. While both concepts were clearly not identical, there was the quest of place-owning *ovahona* to gain acceptance as *oveni vehi* or to liaise closely with an *omuni wehi* in an attempt to bring ritual power and material dominance together. In this way, claims to specific wells were legitimised through the prior dwelling of ancestors and the presence of ancestral graves in the area.

Big men established settlements which were constituted by close patrilineal and matrilineal relatives and clients, who often also claimed some kind of kinship relation with the local big man. Typically clients were poorer herders and/or foragers who often acted as herdsmen to more endowed households. It is especially the larger water points which allowed for some agriculture and sedentary living. Major wells such as Otjiyandjasemo and Kaoko Otavi sustained small villages with a population of a few hundred people (see, e.g., K'Ozombaze 1970; Stals and Reiner-Otto 1999; see also Figure 10.2). For the larger wells, the political domination of leaders (through the possession of 'many guns' and 'good relations with the colonial administration') is emphasised in oral accounts; for other water sources (especially in the Himba context), ritual domination (including the 'presence of ancestral graves') is emphasised in explanations of why some people have access rights to a well and others do not. The absence of water in large tracts of land significantly reduced choices for mobility during the major part of the year.

During the rainy season, specific pastures around pools were used commonly by herders from that village.

We know little about rules of resource protection for the pre-1950 period. Several informants claimed that such rules were not necessary at all as there were very few people and much less livestock than today. Additionally we may add that the water sources in the rainy-season grazing areas were usually exhausted a few months after the rains. This brought a rapid end to the exploitation of these pastures and there was no need to develop rules of protection or equality of access to them.

What role did the colonial government play in this context? Botha (2005: 183) reports that before 1950 there was hardly any effort to intervene in the farming of reserve dwellers. During the first thirty years of South African rule the impact of the colonial government on resource management in north-western Namibia was moderate or, to be more precise, solely targeted pastoral mobility and the maintenance of boundaries. Three big men were nominated as chiefs and were given reserves with more or less fixed boundaries in the northern parts of the Kaokoveld. Migrations across chiefdom boundaries were controlled for some time. For about twenty years (between 1925 and 1945), settling at the Kunene River was prohibited. In the southern parts of the Kaokoveld a no-go zone of about 100 kilometres in width was established between a line crossing in an east-west direction through Ombombo and the commercial farming zone in 1929. In order to free this zone from population, around 1,200 people with about 10,000 head of livestock had to be relocated (Bollig 1998b: 511) to the central parts of the Kaokoveld. Mobility between the westernmost areas of the Ovambo polities of Uukwaludhi, Uukuolonkadhi and Ongandjera was also strictly controlled. Here, too, a buffer zone of 10 kilometres in width was established. Herders



Figure 10.2: Vita Tom and Muhona Katiti in the 1920s.

found settling in these prohibited zones were punished summarily: habitually one or two animals in their herds were shot and they had to evacuate the place immediately. While the delineation of chiefdom boundaries did not have a great impact on mobility and was circumvented frequently, the prohibition of settlement along the Kunene severely upset transhumant cycles of those living in the vicinity of the river. Generally, the South African administration acknowledged and sustained what they perceived as local authority structures. Where no such structures existed they were ambitious in pushing for them. However, the administration did not impact greatly on resource management as such. Such attempts at modernisation would have contradicted the conservative ideology of the administration. The long-serving Native Commissioner for the region, Cocky Hahn, was adamant that what he thought to be the traditional set up should be retained to maintain 'a healthy' tribal situation (Hayes 1998, 2000). Such a situation was thought to be the basis for a disciplined African labour force which could then be used in the mines and the commercial ranching area to the south.

What were the risks of this system and how were pastoral strategies adapted to such risks? A major risk of crucial importance today – the non-availability of fodder in dry-season pastures – was simply structured in another way. Homesteads returned to permanent wells during the dry season and left outlying pastures once the last pools there had dried up. They did not have to care whether these pastures were still productive and offered enough grazing for the dry season: the system was grafted upon the premise that such pastures were only used during the rainy season. The risk of lack of pasture was more specifically connected with dry-season grazing around the few permanent wells. There was a number of risks directly linked to them: first, insufficient grazing due to high grazing pressure as livestock had to be fed on these restricted pastures for many months (throughout the 1950s cattle numbers rose considerably from around 50,000 at the end of the 1940s to 120,000 at the end of the 1950s; see Figure 10.4); second, the denial of access to key resources due to a lack of stable social links to people 'owning' the resource; and third, the eviction of one's own group by another, militarily stronger and/or politically better connected group of resource users.

There was a number of risk management strategies directly answering these challenges. A major percentage of the Kaokoveld's population continued to survive well into the twentieth century as foragers or as pastoralists with few livestock. The fact that only a small number of homesteads in each community owned substantial numbers of cattle made control easier. Access to a permanent waterhole and its surrounding resources were guaranteed by social strategies effectively tying individuals into patron–client networks. Oral traditions often mention such strategies. Kinship ties to patrons were eagerly forged. While local authority structures since the 1950s were based on administrative chiefs who controlled a specific territory, this earlier political system was structured by patrons who controlled numbers of clients. The threat of being outbalanced by other groups could be countered by a number of strategies: first, enlarging the number of clients, as the larger the number of clients of a big man, the less the chance that the community

could be driven off the land; second, improving the military strength of the community, as cattle and especially ivory were invested in weapons and horses; third, creating reliable linkages to the administration, or ‘capturing’ the resident Native Commissioner in a patron–client network by making him the super-patron; four, creating symbolic ties to the land through ancestral graves which in conflicts could serve as reference points for claims of legitimacy.

Only in the 1920s was a pastoral mode of production firmly re-established in the Kaokoveld after the region had been used by foragers for some decades after earlier pastoral communities had fled or had been robbed of their livestock. Throughout the 1920s a majority of the population lived on small-stock herding and foraging strategies, and only a minority of politically dominant big men had major cattle herds. Throughout the 1930s and 1940s the number of cattle grew: a first survey in the late 1920s, of dubious accuracy, estimated some 6,000 to 9,000 cattle; in 1942, 36,200 cattle and 56,600 small stock were counted (Bollig 2006: 71–72), while in the late 1950s the number of cattle rose above 100,000 for the first time. The pastoral mode of production which emerged in the 1920s hinged upon the control of permanent water points. Livestock herds were kept in the vicinity of these permanent water sources during the long dry season and then were taken to access outlying pastures in the rainy season. Local big men and a small number of chiefs dominated the economy and local politics: they were prosperous in cattle and established patron–client networks through loans of cattle. They also brokered contacts with the colonial administration. Through such exchanges, channelled within patron–client networks, the society of the Kaokoveld became more pastoral as more and more people gained access to cattle. Whereas in the 1920s only a minority of households kept large cattle herds, by the end of the 1950s the Himba and Herero of the Kaokoveld were truly cattle keepers.

Was the social-ecological system of the 1920s to 1950s resilient? In many ways, yes: its basic structure could be maintained despite severe droughts in 1915, 1929 to 1932 and 1941, and throughout the century we witness an intensification of livestock husbandry in the region. The system also withstood the imposition of colonial rule. A researcher working with the resilience concept in the 1930s would probably have regarded local pastoralism as highly resilient. Major subsistence crises in the wake of droughts were countered by a number of buffering mechanisms, such as reliance on drought foods (roots, tubers, berries) or far-ranging migrations (*ibid.*: 192–196). But pastoral production and the tenure regime changed massively when the availability of grazing resources was enlarged when a comprehensive borehole drilling programme began in the late 1950s.

Post-1950 Attempts at Modernisation: The Borehole Drilling Programme

After the official introduction of Apartheid in South Africa in 1948, policy towards the African reserves also changed profoundly in Namibia. The Long-term Agricultural Policy Commission (LAPC) of 1948 found that ‘the limit of

carrying capacity ... has been reached' (cited in Botha 2005: 177) and recommended soil conservation, appropriate stocking rates and improved livestock breeds. Reports of catastrophic degradation of Southern African savannahs due to over-exploitation haunted the public media (ibid.: 176). Reserve economies were targeted for modernisation, so that they produced enough food for a growing population. Botha reports that 'modernisation theory ruled and went with disdain for any form of local, especially African, knowledge' (ibid.: 170–71). Traditional authorities were regarded as important partners in the policy of modernisation.⁷ The decision on how and where to start modernisation programmes was given to experts, who emerged as a new group of administrative actors: where a Native Commissioner had ruled until then, he now had to share his powers with experts sent from the centre. Whereas the Kaokoveld had been cordoned off beforehand, after 1950 a number of scientific studies were undertaken in the area: geological and hydrological (e.g., Abel 1954), anthropological (van Warmelo 1951; Malan 1974) and zoological (Viljoen 1988). In 1957 the Kaokoveld became the 'independent' reserve of Kaokoland under the direct authority of the chief Native Affairs Commissioner in Windhoek (van Wolputte 2004: 163).

Scientists, especially geologists, hydrologists and agriculturalists, became influential and grounded much of the political decision-making process with data. While in the 1930s a few waterholes had been blasted, a regular borehole programme was launched in the mid 1950s. In a letter to Native Commissioners, the chief Bantu Commissioner in Windhoek argued in 1955 that development (*ontwikkeling*) in reserve areas was necessary and that borehole drilling was an important step in that direction. He asked Commissioners to identify areas which could be 'opened up' for human exploitation by boreholes, and in the late 1950s and early 1960s boreholes were drilled in considerable numbers.⁸ The borehole programme was to fulfil two purposes: it was to modernise local livestock husbandry, and to win the 'hearts and minds' of local leaders at the same time.

In 1963 the Odendaal Commission went into the Kaokoveld with the task of preparing plans for giving the area semi-independence as a 'homeland'. The Odendaal Commission's report (RSA 1964: 183 [Odendaal Report]) then recommended boreholes as the key to economic development in the vast semi-arid savannah of the Kaokoveld and argued that drilling boreholes would mean that pastures rarely used until then could be fully exploited. Water was regarded as a key resource which had to be exploited with new technological means (ibid.: 411). Throughout the latter part of the 1960s and through the 1970s and 1980s, boreholes were drilled in large numbers in the Kaokoveld. In the 1950s some 43 boreholes were drilled; these were all around the homeland capital Opuwo and to the south-east. During the 1960s another 136 boreholes were drilled, with numerous others in the ensuing decades: 128 in the 1970s, 57 in the 1980s, and some 40 in the 1990s some (Figure 10.3). Generally, local chiefs applied to the Department of Water Affairs for the placement of a borehole in their area, and they were then consulted by local officials to identify its optimal placement.⁹ At the very beginning of the borehole programme, chiefs and their councillors

openly resisted the initiative: they alleged that the government was keen to drill boreholes in order to extend its control over the pastoral population, a claim that was not far from the truth.¹⁰ Some leaders advocated that boreholes should only be drilled with money collected by the herders themselves, while others vociferously demanded that pastoral lands that had been allocated to Etosha National Park needed to be returned before any other meaningful development

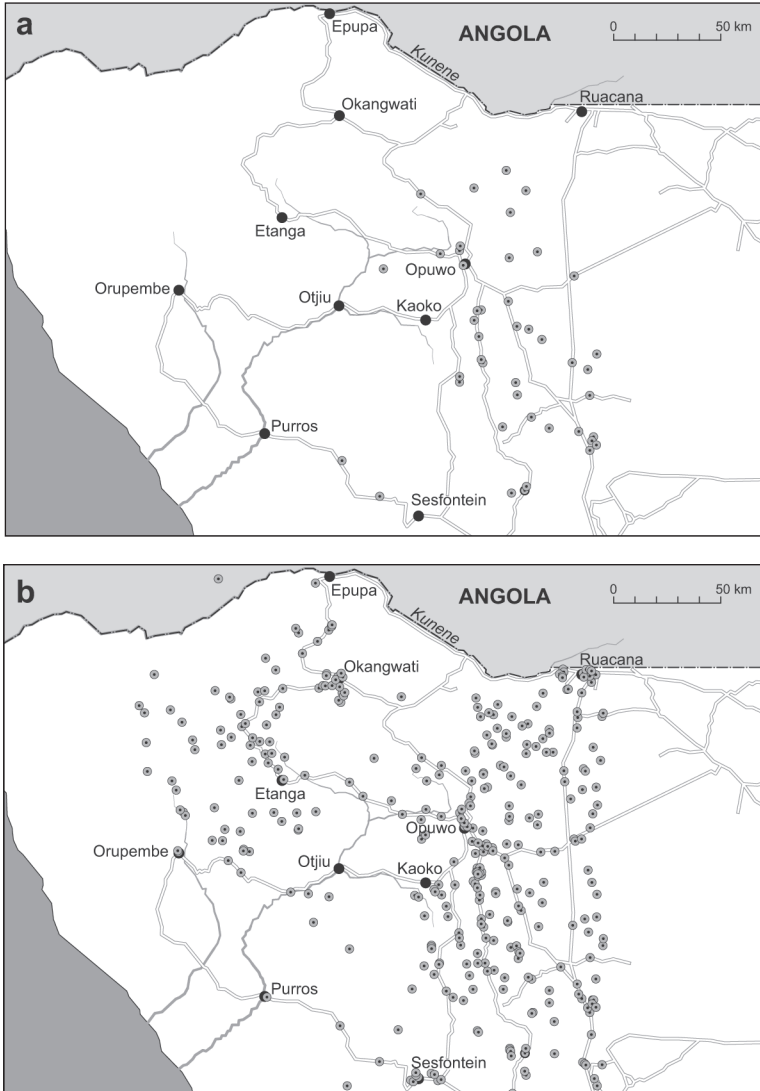


Figure 10.3: Borehole drilling in Kaokoland. a: boreholes drilled in the 1950s; b: boreholes drilled until the 1990s.

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could take place. From the mid 1960s, however, the programme ran smoothly and traditional authorities apparently realised that the government had given them a very powerful means of control and dominance: they could determine where boreholes were placed, thereby expanding opportunities for themselves and their followers. During the mid 1960s a lot of meetings consisted of formal applications by chiefs for boreholes. Boreholes were carefully registered and fully maintained by the Department of Water Affairs. The drilling of boreholes, however, also entailed the rhizomatic extension of the state, which penetrated the local economy and pastoral landscape effectively and irrevocably.¹¹ Boreholes and a network of roads connecting them constituted the pastoral landscape and largely impacted upon settlement and mobility.

The development of a network of boreholes in former dry-season grazing areas between the 1960s and the 1970s led to a reversal in mobility patterns. Herds could now stay in former rainy-season areas during the dry season as they were no longer dependent on rainwater. Much wider areas than before were thus made accessible for grazing. A look at the increase in cattle numbers suggests some relation to the borehole drilling programme (see Figure 10.4). During the mid 1950s, cattle numbers increased to above 60,000 head and then quickly rose to about 120,000 in 1958. While it is true that the borehole drilling programme began at that time, the presence of additional water sources cannot explain the rapid increase alone: most of the 1950s were very good rain years, with annual precipitation well above the long-term average (Bollig 2006: 112–13). A major drought at the end of the 1950s, which ran into the early 1960s, brought cattle numbers down again to 65,000. Unfortunately we lack livestock counts for most of the 1960s, but by 1973 cattle numbers had reached an all-time high of some 140,000 head. I surmise that the rapid increase in livestock numbers was only possible because of the expansion of boreholes.

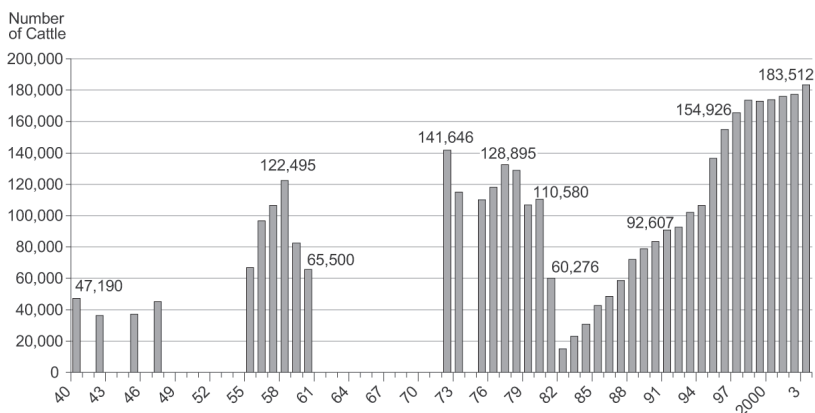


Figure 10.4: Livestock numbers in the Kaokoveld between 1940 and 2005. Sources: Directorate of Veterinary Services internal files; Page (1976); van Warmelo (1951).

A new set of rules had to be developed to address questions pertaining to the regulation of access to pastures and to the sustainability of their use. The herds stayed at permanent water points along rivers during the rainy season and then moved out to outlying pastures during the dry season where water was now provided by boreholes. This also made more labour investment in agriculture possible. Whereas, prior to the drilling of boreholes, during the rainy season most people congregated close to the rivers, and thus far from arable land, when planting could take place, now they could converge on these lands during the rainy season. Sander, Bollig and Schulte (1998) as well as Welle (2007) document the rapid increase in gardens in the Omuhonga basin since the mid 1970s (Figure 10.5).



Figure 10.5: Pastoral tenure and mobility in the 1990s.

The situation also changed in the wider Epupa region with the development of water resources in the area (see Figure 10.5). Boreholes were drilled at Omuramba, Otjikango and Omuhandja in the 1960s and 1970s, and a dam was built at Okombanga near Omuramba. At the same time further boreholes were installed at other places in the region (the Omuhonga Valley, Ominyandi). What had once been rainy-season pastures now became dry-season pastures. However, this also meant that whereas they had previously been grazed for three or four months they were now used for a much longer time. The major focus of settlement now became Omuramba, replacing Ombuku, a place with permanent water at a perennial river. Only during the height of the dry season would people fall back to the Ombuku Valley where they had dwelt before over the entire dry season. The change in the grazing regime probably took place as a consequence of borehole drilling in the area.¹²

After the drought and subsequent heavy livestock losses of the early 1960s, cattle herds increased rapidly once again: within roughly a decade cattle numbers climbed from some 60,000 to about 140,000. The rapid increase of livestock was made possible by continued borehole drilling and the opening up of pastures for dry-season grazing since the mid 1950s. Whereas before the mid 1950s, with cattle numbers in the Kaokoveld not exceeding 50,000 head, there had been vast areas of unused pasture every year, now a regional cattle herd exceeding 100,000 head needed all the available grazing. Whereas cattle numbers had only exceeded 100,000 for two years before the major drought of 1960/61, livestock numbers stayed well above 100,000 over a period of ten to fifteen years before the drought of 1980/82. The intensification of mobile cattle husbandry and the accumulation of livestock led to a general increase and distribution of wealth. In the 1960s and 1970s all inhabitants of the Kaokoveld subsisted on more or less extensive livestock herds. All households owned at least some cattle and wealthy herders, such as the Himba chief Munimuhoro, may have owned well above 10,000 head distributed over a number of livestock camps.

Apparently the perennial layer of grass rapidly gave way to annual grasses, which in turn were much more susceptible to drought. The droughts of the mid 1970s and especially the major drought of 1980 to 1982 showed how vulnerable the system had become through the intense increase in herds made possible by the government-endorsed borehole programme. We may conclude that in the long run the hydrological revolution of the 1960s and 1970s made local pastoralists richer but also more vulnerable to drought.

Other risks were brought about by the borehole programme and the opening up of vast stretches of land for dry-season grazing. Competition for access to dry-season pastures became a potential source of conflict. While in the past, when these outlying pastures had only been grazed when water was available there, now everybody who could make primary use of such dry-season pastures had distinct advantages. Whereas grazing such stretches during the rainy season did not bring about the need for cooperation because pastures grazed during the rains still had considerable regrowth, now stretches grazed during the dry season could only be

reused the next year. The coordination of grazing efforts and a detailed set of rules during the dry season was the only way to circumvent such conflicts. But how did herders and their communities react to these changes in the mode of production?

Changing Patterns of Mobility and Tenure as a Way to Lower New Risks

The community that managed pastures was fairly clear-cut. All households that were under one chief were allowed to use the pastures that fell within that chiefdom. Behnke (1998b: 4) observed that most Himba chieftaincies in the early 1990s were organised along drainage systems and combined river frontage and upland grazing areas. A chieftaincy in this sense formed a large and loosely integrated herding-and-resource-management unit (ibid.: 12). The administration divided the Kaokoland homeland into different subunits (*wyke*) and appointed headmen to administer them. In contrast to the prior state, a clear link between individual households and specific grazing areas was replaced by a clearer specification of the political constituency dealing with a resource – a water point was no longer under the control of a local big man but rather part and parcel of a chiefdom with rather clear-cut administrative boundaries. Increasingly chiefs and their councillors as paid semi-officials and intermediates between local communities and the state became prominent. Membership in a resource-managing community was still established via kinship links. Graves and rituals conducted at them gave proof of the legitimacy of tenure rights in a specific place.

The rules of good grazing (*ozondunino yomaryo*) apparently evolved in reaction to the implementation of the borehole programme and the altered structure of subsistence risks: first, grazing in the dry season grazing areas is prohibited during the rainy season; second, cattle camps must move a considerable distance away from the main settlement areas; third, livestock camps must move together in a group; four, herders should look for dry season grazing near to their main settlement; five, once settling in a specific place, cattle-camp owners decide in which ‘direction’ each herd is herded – that is, in the morning each herder takes his herd out of the camp in a specific direction; six, too much movement between camp sites (*okukandakanda*) is not appreciated; and seven, special areas should only be used during droughts and not during normal dry seasons.

These rules first of all tried to keep conflicts over grazing at bay. For example, the prohibition on settling ahead of others ensured that all herders had the same chance to exploit an area of pasture (see Behnke 1998a: 15). Rules narrowed down the choices for cattle camps and made moves more predictable. A second goal was to maintain grazing near main settlements to ensure the supply of milk to elderly folks and children during the dry season when the majority of cattle were taken to outlying pastures; a third intention may have been to ensure a sustainable management of pastures.

Grazing guards (*ovatjevere vomaryo*) were appointed. These were chosen by a meeting of the community. The fact that these men were also addressed as ‘graz-

ing police' (*ovapolise vomaryo*) shows that they were regarded as an extension of the homeland bureaucracy. Formally these men were entitled to inspect the area for homesteads and camps which did not adhere to the rules. However, everybody could bring up complaints against a neighbour or herder they thought was breaking the rules. At first a meeting took place at the neighbourhood level. The accused was summoned and given time to explain their case in an ad hoc meeting. Usually no punishment was meted out at these meetings and, if possible, those involved tried to reach a consensus on how to change the situation for the better. If these minor meetings at a neighbourhood or cattle-camp level did not lead to a decision, the case was then referred to a meeting at the chief's home.

The South African government encouraged chiefs to punish wrongdoers 'according to tradition'. Chiefs occasionally resorted to flogging, which was rather in the tradition of the colonial administration than legitimised within the local authority system. Furthermore, trespassers had to pay a fine, usually an ox. When several oxen had come together, these were driven to the Native Commissioner's compound in Opuwo. In the 1990s physical punishment was no longer practised and fines were invariably paid in livestock. These were either paid to the neighbourhood council or to the men gathered in the meeting at the chief's home and no longer transferred to the administration, although such fines were still often addressed as 'government animals'. Usually animals paid as fines to the men gathered in the meeting were immediately slaughtered to provide those attending the meeting with meat.

Pastoral intensification, tightly linked to the expansion of boreholes, led to some changes in the pastoral mode of production. The availability of water in many places made permanent settlement possible in localities which until then had only served as seasonal grazing areas. This change in mobility pattern brought about an increased independence of cattle-camp owners. Whereas cattle camps had previously stayed away from permanent settlements for a few months only during the rainy season, now they were away from settlements for most of the year. In the 1990s I came across many cattle camps which had not joined their main households at all over the course of a few years. At the same time, labour allocation within households changed: the increase in gardening activities brought about more agricultural labour, especially for women. Most heavy manual labour connected to gardening was sourced out to labourers from southern Angola. In several places, prior main settlements were given up or declined in importance as central places and settlements shifted to the proximity of boreholes. This led to a wider distribution of a growing population across the landscape. Accounts of the deeds of and conflicts involving *ovabona* so prominent in the oral lore of the pre-1950s are conspicuously rare for the 1960s and 1970s. Whereas before the 1950s big men dominated the pastoral setting, since the 1960s pastoral wealth became more widespread. For the later period, the term *omubona* either denoted the administrative 'traditional' authorities (chiefs and councillors) salaried by the government or local wealthy and politically influential herders. The continuous large livestock numbers herded in the region

allowed for the expansion of intricate and expansive livestock exchange networks. Bollig describes how large numbers of cattle are invested in social exchange and leave the owner's herd as 'loaned cattle' (*ozondisa*) or 'presented animals' (*ozohakera*). Matrilineal inheritance also provides for the distribution of livestock herds in the region (Bollig 2006: 294).

Chiefs were co-opted by the colonial government and became salaried administrators, allotted wards as administrative units. Hence they relied less on power to sustain their dominance but rather fostered their links to the colonial administration. In 1995 the socio-ecological system appeared to be fairly resilient. It had gone through some major disturbances in the 1980s: civil war and military rule had negatively affected pastoral mobility, and a major drought from 1980 to 1982 had killed 90 per cent of the region's cattle – and still the system continued to exist without collapsing into a qualitatively different state, controlled by a different set of processes.

However, changes in the original mobility pattern brought about profound changes in rangeland vegetation. The pre-1950s system characterised by intense grazing on outlying pastures during the rainy season – that is, for only three to four months during the growing period of rangeland vegetation – favoured perennial grasses. In contrast, the new mobility pattern, which meant intense stress on vegetation during the dry season, disadvantaged perennial grasses and advantaged annual species. The new rules stipulated that outlying pastures should not be grazed during the rainy season, thereby ensuring that annual grasses were not disturbed during their main growing period. Through the rules of 'good grazing', annual grasses on dry-season pastures were protected until they had seeded, thus ensuring their reproduction. In contrast, perennial grasses were massively disturbed during a period of time when, due to a lack of moisture in the soil, they could not sufficiently recuperate. This led to a rather rapid change from pasture dominated by perennials to pasture dominated by annuals (see Figure 10.6). The major drought-induced livestock mortalities of the early 1980s – the number of cattle dropped from about 120,000 to about 15,000 animals in a period of only two years (*ibid.*: 166–67) – may have brought about some reversals in this trend, but from the early 1990s grazing pressure increased, and by the end of the 1990s cattle numbers had reached about 180,000 animals.

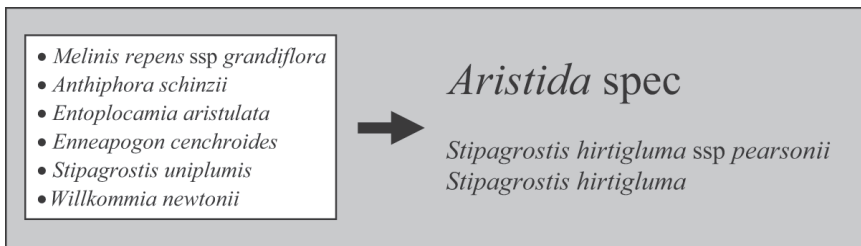


Figure 10.6: Degradation of pastures: from diversified pastures to pastures dominated by *Aristida* spec.

Consequently, a decline in the diversity of the grass and herb cover, as well as in the tree and bush cover, was observable in many areas (Bollig and Schulte 1999). In the late 1990s, remaining perennials such as *Stipagrostis uniplumis* and highly valued annuals such as *Willkommia newtonii*, *Entoplocamia aristulata* and *Anthephora schinzii* were in decline, whereas lower-valued annuals such as *Enneapogon desvauxii* and *Aristida adscenionis* were on the increase. The almost complete change from perennial to annual grasses made the local grazing system more vulnerable to drought: whereas perennial pasture may still yield some fodder in years of low rainfall, annual pastures rarely produce any significant fodder during drought years. Very high livestock numbers have altered the state of the vegetation further. Since the late 1990s a distinct trend towards the replacement of high-yielding annuals with more robust but low-yielding annuals has been observable.

With the independence of Namibia in 1990 a number of fundamental socio-political processes were set in motion which can only be touched upon briefly here (see also Miescher and Henrichsen 2000; Friedman 2005). Whereas the Kaokoveld had been a separate administrative unit with its own homeland administration, and had been isolated for many decades from the rest of the country, now linkages to actors and organisations beyond the Kaokoveld were intensified. Tourism in the region boomed and the number of tourist entrepreneurs from outside the region increased. NGO activities became prominent in various development projects. Probably due to the affiliation of some parts of the population with the South African administration and the South African army, many inhabitants of the Kaokoveld were opposed to the new independent government. When, in the mid 1990s, the government tried to push for a huge hydro-electric dam on the Kunene River against the will of the local population, this anti-government stand became even more pronounced (Friedman 2005). Nevertheless, especially since the latter part of the 1990s, a number of development initiatives have been inaugurated in the region.

Deinstitutionalisation and the Search for the Reorganisation of Common Pool Resource Management

In 2004/5 I again focused research on grazing management and, much to my surprise, a lot had changed. During interviews in 2004, respondents emphasised the high degree of detrimental vegetation change they had experienced during the past decade. It is interesting to note that ten years earlier, in 1994/95, herders had related the degradation of the vegetation to the imponderability of rainfall and rejected the idea that the phenomenon was related to high livestock numbers. In 2004, however, respondents were sure that high grazing pressure combined with institutional failure was causing severe forms of degradation in the grass and herb cover. The perceived trend becomes clear from herders' observations on specific localities: a diverse layer of perennial and annual grasses is replaced by low-yielding annual species such as *Aristida* species.

In several interviews informants claimed that the local system of pasture management had virtually crumbled. Several indicators for the demise of grazing control were given.

First, in several grazing areas there were disputes over who was allowed to make use of specific pastures. While on the one hand politically dominant figures succeeded in reserving pastures for their own herds (without fencing them), in other areas young herders had moved into areas which were far away from their regular settlement areas.

Second, Himba informants in the Epupa area stated that the sanctioning of misbehaviour had virtually been abandoned. Several reasons were given: one informant said that it was simply hard to put enough pressure on a culprit to pay their fine; others claimed that the death of some elders, who had dominated the local community as wealthy cattle patrons and who had been central to the handling of cases, had weakened grazing control; yet another informant stated that many people reasoned that it was not cattle-camp herders who should be fined but the owners of the herds in the camps who were frequently far away and had given orders to their herders to move into forbidden pasture land, or, at least, were the ones who profited from such moves. Such ambiguous considerations prevented the community from effectively defining and sanctioning misbehaviour.

Third, some significant shifts of pasture use had taken place. Some previous dry-season pastures were now permanently settled by households. The plains of Omuhandja and Ovizorombuku near the Kunene River, for example, had previously been only accessed during the dry season. Since the mid 1990s a number of households had settled there permanently exploiting the demand for 'Himba villages' for tourist entrepreneurs based in Epupa.

Several factors were apparently contributing to these institutional dilemmas. The number of cattle had nearly reached the 200,000 level, an all-time high, and to manage such large numbers of livestock within a restricted area was simply much more difficult. This increased the transaction costs of institutions: communal meetings took longer because of more community members being present and because a higher diversity of interests had to be taken into account. Informants mentioned the strain lengthy community meetings put on their time. Frustratingly, many such meetings ended without any clear decision. Large livestock numbers and the decline of grazing control had apparently contributed to a demise of pasture quality. Nomadic livestock husbandry in the region seemed to be in disarray. The demise of a grazing system which was perceived as successful in guaranteeing equal access to resources (and diminishing competition) and in safe-guarding pastures was deemed to be the major risk to communal grazing. The issue was much debated and many meetings were held on how to best curb the situation. Several solutions were proposed, some highly individualistic, some rather geared towards communal responses.

How did local herders react to the crisis? It is noteworthy that interviewed herders were unanimous in their judgement that the system was actually going through a crisis. They framed the degradation of pasture as 'the country has

become weak' and then listed more detailed observations. They also reported on a great number of meetings which had taken place to find new institutional solutions to the grazing problem. Some, however, did not want to wait for new institutions to emerge. Over the few years prior to my return, a remarkable out-migration of households from the research area had taken place: some households had migrated south of Opuwo (some 150 kilometres away), some reaching the Sesfontein area (some 300 kilometres away), others going to the wider Ekoto area (about 300 kilometres); some households had left for Angola and a few had more or less permanently settled in a neighbouring mountainous area. I interviewed some of the heads of out-migrating households for the reasons for their decision. The answers were unanimous: the pastures had been bad in the research area, losses of livestock due to emaciation had been frequent, attempts at improving the situation had failed, and other areas seemed to offer better grazing. The out-migration of households from the wider Epupa area is paralleled by moves of Himba households from other areas to the southern parts of the Kaokoveld, areas which are mainly occupied by Herero herders. In a two-week-long survey we listed twenty-six Himba households in the southern parts of the Kaokoveld. It is hard to establish with what number of cattle they migrated there. In interviews, migrant herders said that they were attracted to these areas by better grazing conditions and by more stable institutions of resource tenure. Many Herero herders, however, saw these moves with some scepticism and alleged that migrant Himba herders often contributed to the demise of grazing by adding substantial numbers of cattle to the regional herd and by not adhering strictly to grazing rules.

In this situation local actors actively sought help from the government and NGOs in an attempt to reorganise resource tenure. Between 1996 and 2003 the Namibian government overhauled its legislation on natural resource management in communal areas. The direction of these legal changes were unidirectional: the state devolved authority over natural resources – game, forests, wells, pasture – to communities once such communities formalized membership, established democratic decision-making structures, clearly defined the boundaries of the resources they intended to exploit and protect, and formulated a management plan for the sustainable exploitation of key resources. Resource management communities – as conservancies, community forests, grazing associations or water-point associations – were also entitled to derive income from these resources. Conservancies could sell hunting licences to tourist entrepreneurs or lease land for the building of a lodge, and water-point associations could stipulate user fees for water points. Their major official aim was to conserve wildlife; the intangible benefits from establishing a conservancy, however, were also rated highly: tighter control over immigration, clearly demarcated boundaries and institutions for internal resource-related conflicts. The co-management of resources became an answer to the crisis of the pastoral sector; NGOs and governmental bodies were seen as allies in the search for solutions to problems which seemed unsolvable at the local level. The region's herders resorted to the conservancy movement in astonishingly high numbers and in an amazingly rapid manner: the first conservancy in the wider region was inaugurated in 1998;

only ten years later almost the entire region was parcelled up between already established or planned conservancies (see Figure 10.7).¹³ At the time of writing, a number of planned conservancies in the centre of the Kaokoveld are seeking formal acknowledgement from the government, and in a few years' time probably the entire Kaokoveld will be covered by conservancies.

Many conservancies in the Kunene region are bounded by former wards which under South African rule were identical with chieftaincies: On the one hand it was much easier to resort to former chieftaincy boundaries than to define completely new ones when negotiating boundaries with neighbouring communities. On the other hand, traditional elites were keen to see their territorial structures transformed into entities of natural resource management. In order to prepare the documents for registration, boundaries of conservancies had to be clearly established using modern mapping equipment. The successful boundary demarcation of chiefdoms was frequently mentioned by traditional authorities as something beneficial. While traditional authorities had comparatively little

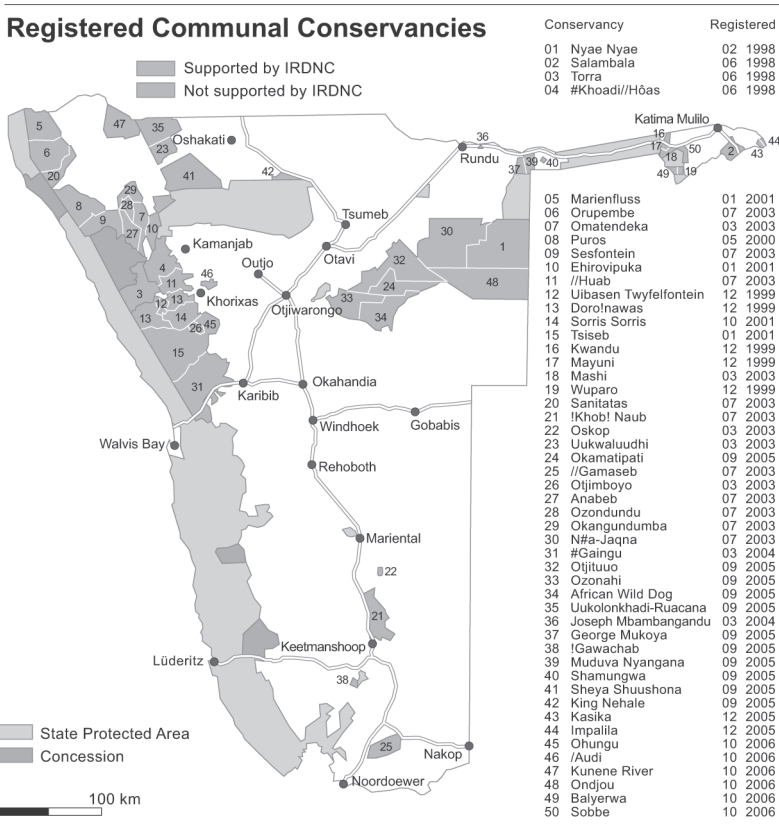


Figure 10.7: Namibia's communal conservancies (source: www.nacso.org).

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say in governmental administrative procedures, they now became partners of NGOs. This engagement with the NGO sector also offered material rewards. While beforehand the South African government had paid chiefs' salaries, this procedure was disbanded as only two out of the Kaokoveld's thirty-six chiefs were acknowledged as traditional leaders. Through conservancies and agreements with the conservancy committees, some chiefs could divert some income from tourism into their coffers. Institutionally, they were also included in the reorganisation of resource tenure. The first issue a conservancy had to solve was defining the relation of its elected committee to the local chief and his councillors or sub-chiefs. Conservancies in north-west Namibia have solved this issue with a great enthusiasm for constitutional experiments. Conservancy constitutions have found very different ways to define the linkage with traditional authorities: in some committees the traditional authorities are *ex officio* members, in some they are only allowed to send representatives, and in others they establish a sort of second chamber together with their councillors. It is noteworthy, however, that there is not one constitution where traditional authorities are not of decisive relevance. Chiefs, however, are often ambivalent about the emergence of new resource-management units and clearly feel that new nodal points of decision making are emerging within the local community.

A land management plan in which all members of a conservancy agree upon a land-use plan which specifies pastures for seasonal grazing, settlement areas and core conservation areas is part and parcel of an application to the Ministry of Environment and Tourism for conservancy status. The land management plan then becomes an officially endorsed document which is deemed to be the blueprint of future land use. Many people interviewed voiced their hope that the reshaping of chieftaincies as conservancies, the combination of traditional and modern elites in committees and a governmentally endorsed land-use plan would make common pool resource management effective again.

Water management became a second instance of the co-management of natural resources. Until the end of the 1990s, rural water supplies had been fully managed by the Directorate of Water Affairs within the Ministry of Agriculture. Following international agreements, Namibia then changed its policy of rural water supply, and the government introduced legislation which gave more responsibilities to local resource users. In contrast to conservancies, non-governmental organisations were of lesser importance in the establishment of this policy. The new legislation stipulates that control over boreholes in rural areas should be handed over to rural communities.¹⁴ Local water users are encouraged to establish water-point user associations whose members elect water-point committees to oversee the daily management of water resources and financial issues.¹⁵ Water-point users associations are meant to make rules for the use of rural water supplies, prevent any person who does not comply with the rules or constitutions of a user association from using its water point, adopt measures to prevent the wastage of water, and plan and control the use of communal land in the immediate vicinity of the water point in cooperation with the respective communal land

board and traditional authority. Not mentioned here, but of crucial importance for the overall application of the legislation, is that water-point user associations are to collect user fees and use them to manage their water point.

In some areas of the Kaokoveld, grazing schemes based on the principles of holistic range management (Savory 1998) have been inaugurated. Holistic range management rests on the assumption that high livestock densities can be maintained once intense grazing is concentrated in short time periods. In order to guarantee such conditions herds are amalgamated, preferably numbering no more than a few hundred animals, and put under a management committee. Herds then graze on clearly demarcated stretches of pasture for short periods of time. The introduction of such schemes involves a profound reorganisation of herd management for Himba and Herero households. Where such schemes are implemented several households come together and build one central cattle enclosure from which grazing is organised. Each household proposes one or two herders to manage the joint herd. In several instances milk is transported from this main enclosure to the cattle camps. Through most of the year the herd is herded together at varying distances from the main settlement.

What impact have these changes had on land management in the wider Epupa region? Several profound changes have taken place there over the past ten years. Firstly, conservancy status has been applied for. After lengthy boundary negotiations with a neighbouring proposed conservancy and even more difficult negotiations between the local chief and the committee of the proposed conservancy on the sharing of benefits derived from tourist businesses in the conservancy area, all necessary documents have been handed to the Ministry of Environment and Tourism. The land management plan attached to this application shows core conservation areas, areas designated for intense use through livestock herding and settlement areas. Currently the community is awaiting the Ministry's final decision. Within the area of the proposed Epupa conservancy a grazing scheme was launched some years ago which is supported by an NGO and which also renders support to the proposed conservancy. A number of herders (varying between three and six over the course of the years) came together to herd their cattle according to the principles of holistic range management in the Otjikango area. In order to allow them to water a larger herd of cattle permanently at the Otjikango well, the NGO drilled a new borehole there. The households established one big homestead in the area and from there they herd all their animals jointly through most of the dry season. During the rainy season they move their animals to Ondova where they join other cattle camps. There they do not herd according to the principles of holistic range management. They agreed with other community members and the local chief that other cattle camps should abstain from moving into the Otjikango area unless they join the grazing scheme.

Other changes of range management in the area can only be touched upon briefly here. In the Omuhandja area near Epupa, a village-like settlement developed. Households there have become fairly sedentary and only move their livestock camps to dry-season pastures. Households are apparently tied to Omu-

handja as tourists from Epupa frequently visit households and bring presents in return for permission to take photographs. This villagisation process may be enhanced as a primary school was recently built there. In the centre of the grazing area, the local chief, wealthy in cattle, succeeded in reserving prime grazing lands for himself and his patriline. These chiefly grazing grounds are unfenced but virtually nobody else makes use of the grazing in Omuramba and Ombuku unless they have been explicitly permitted to do so by the chief.

In many respects patterns of resource exploitation have changed. It is as yet difficult to say in what direction the pastoral mode of production will change as new institutions of resource tenure are only emerging. At the moment the fragmentation of common resource management dominates: the group of resource users has become internally more differentiated and so too have the rules of resource use themselves. In our case study area the people of Omuhandja and the herders of Otjikango – for different reasons – try to establish their own commons and to stipulate their own rules for their management. In both cases the community sharing a resource has become restricted and certain management principles have been more narrowly defined. Outside agencies – NGOs and the government alike – are involved in the local search for new institutions: they either inform people of blueprints for conservation management or rules conducive for a smooth working of grazing institutions. Rules derived from such blueprints as well as older, locally established institutions are reconsidered locally and their potential combination is much discussed. Such developments seem rather typical all over the Kaokoveld, and whether or not new stable institutions will emerge for the organisation of resource management across the wider landscape remains an open question.

Closing Remarks

The preceding sections show that pastoral resource management in north-western Namibia has gone through phases of stasis and rapid development over the past century. While the pre-1950s set-up relied on home ranges, the second half of the twentieth century was characterised by the joint regulation of pastures within the framework of chieftaincies and neighbourhoods, and the recent period seemingly rests on management through smaller user units. Stability dominated these two earlier phases for some thirty to forty years and transitions have been swift. During stable periods of each mode of regulation a certain set of institutions was developed and supported by a specific configuration of social networks and power structures. Each mode of regulation can also be linked to specific vegetation structures in pasture land. Presently a number of alternative regulative approaches compete for influence and the local community is searching for a predictable and fair approach to the management of a set of common pool resources, which they regard as rapidly degrading due to uncoordinated use. Whether local communities will again succeed in adopting efficient and internally undisputed institutions of common pool resource management which appeal to a wider population remains to be seen.

For anthropological theory-building, it is highly interesting to consider that order is created rapidly and not incrementally, and that periods of rapid transformation are followed by periods of stability and cultural elaboration. It is these periods of stability which are characterised by specific modes of risk management. Due to the fact that most anthropological studies concentrate on a rather brief time period of one to two years, or – in some better cases – rely on two periods some twenty, thirty or more years apart, anthropologists usually have little to say about the speed of change and about the relation between phases of stability and those of transformation. Only long-term studies will be helpful in developing theories of change within complex social-ecological systems.

Notes

1. For a critical account of this discourse emphasising static human–environment relations in north-western Namibia, see Bollig and Heinemann (2002).
2. For a general introduction to the ecology, history and contemporary economy of north-western Namibia, see Bollig, Brunotte and Becker (2002).
3. NAN, J XIIIb5, H. Vedder. 'Reisebericht des Missionars Vedder an den Bezirksamtman von Zastrow. Geographische und Ethnographische Forschungen im Kaokoveld 1900–1914', (1914). Shortridge reports 'The Kaokoveld is very sparsely inhabited by nomadic Ovashimba Herero tribes that live chiefly by raising a sufficient number of goats and sheep for their own requirements', and 'The Ovashimbas are a primitive race of nomadic Hereros that chiefly inhabit the Kaokoveld. Their chief occupation appears to be raising goats and the local breed of sheep' (National Archives of Namibia [NAN], SWAA 1331/198/6/2 [1923]).
4. NAN, J XIIIb5, H. Vedder, (1914). For similar remarks on the close connection between local big men and waterholes, see, e.g., Reitz (1943: 103).
5. On the political economy and organisation of these returnees from Angola, see Bollig (1998a).
6. Vansina describes the position of Herero *ovahona* as follows: 'those rich in cattle had many dependents. When nineteenth century rumours speak of owners of over ten thousand head of cattle, such persons probably had between one and two hundred client families, at least as many servants, and occupied a very large grazing territory to match' (Vansina 2004: 130).
7. See also Alexander (2001: 216) for similar developments in Zimbabwe.
8. NAN, SWAA BOP 5, Kantoor van die Hoofnaturellekommissaris, Windhoek SWA Naturellesake Omsendbrief Nr 17/1955, 26 August 1955.
9. Garth-Owen Smith, former agricultural officer (personal communication).
10. NAN, SWA/KC/7E/52. (RSA 1964: 623).
11. For a general account of the history of the 1960s and 1970s, see van Wolputte (2004).
12. There were other reasons for the move from Ombuku to Omuramba: a newly built road came close to Omuramba, which also lay in the midst of splendid grazing whereas Ombuku was placed at the edge of it.
13. See also Bollig (2004) for the process until 2003.
14. For the legislation, see RoN (2004, 2008).
15. See RoN (2005), especially part 5, section 16.

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