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A MICRO LEVEL ANALYSIS OF VIOLENT CONFLICT

Institutions and Conflict: Communal Water Management in North-West Namibia

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Institutions and Conflict: Communal Water Management in North-West Namibia[1]

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Abstract: In the context of recent legal developments in Namibia promoting the common based management of water resources, the main focus of the project underlying this paper was to gain a detailed impression of how the rural communities in the country were dealing with the development of institutional arrangements for the water access and usage. Based on an anthropological fieldwork this paper aims to describe and to analyse the conflict over water a rural community in North-West Namibia is confronted with. From a theoretical perspective, the objective of this paper is to analyse the role of power in the development of institutions by means of Knight's (1992) bargaining theory of institutional development. This paper concludes that the case study provides important evidence that the development of institutions at the local level can be the by-product of a strategic conflict and not the result of the users' attempts to achieve collective goals, as frequently assumed by the mainstream communal natural resource management theory.

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TABLE OF CONTENTS

1. Introduction

The background of this paper is linked to a research project promoted by the United Nations University – Institute for Environment and Human Security (UNU-EHS) named "Water related conflicts in the local context" as part of the EU-funded MICROCON project.[3] The following remarks are based upon the Master's thesis of the author which has been undertaken within the afore mentioned project and which has been derived from a three month research stay in Northern Namibia.

For the research purposes underlying this research project, Namibia was of special interest principally due to its climate characteristics and corresponding law regulations. Namibia is the driest country in the Sub-Saharan Africa varying from 600 mm rainfall per year in the northwest to less than 50 mm per year at the coast. The occurrence of rain during the rainy season from October to April is limited to convective showers and is extremely variable both in space and time (De Bruine/ Rukira 1997). Concerning legal regulations, the government of Namibia has been introducing many measurements towards decentralization after the independency in 1990. Specifically in relation with the water management, it was decided in 1997 that within ten years the responsibility for managing and paying for water services should be progressively devolved to community organisations (Republic of Namibia 2000).[4] This means that the water infrastructure (boreholes, pipes, pumps, windmills etc.) that has been provided and maintained by the government up until then should be progressively handed over to the members of rural communities. This process was embedded in the framework of a Community-Based Natural Resource Management (CBNRM) strategy with the following implementation schedule (cf. DRWS 2004: 17):

Phase 1:	Capacity Building	1 August 1997 – 31 July 1998
Phase 2:	Handover for Operation and Maintenance	1 August 1998 – 31 July 2003
Phase 3:	Handover for Full Ownership	1 August 2003 – 31 July 2007

Within the first phase, the Water Point Committees and Caretakers should be trained in book-keeping and management skills while in the second phase, they should receive training in operation and maintenance. In these two phases, the communities should be prepared to take over the full ownership of the water points of their respective use (cf. DRWS 2004: 30f).

In 2004, the Water Resources Management Act No. 24 gave the reform already in progress a legal framework. This Act stipulates the establishment of Water Point User Associations (WPA), which consist of those community members who permanently use a particular water point. The members of a WPA have the task of maintaining the water point and of managing the water supply services

[3] For more detailed information about MICROCON see http://www.microconflict.eu/

[4] This applies only to the rural areas. In urban centres and townships, however, the state continues to be very active and controls great part of the water supply.

at the water point. Furthermore, they are to elect a water point committee whose task it is to manage the affairs and the day to day activities of the WPA, including financial matters, and to help resolving conflicts relating to water resources in its water management area (Republic of Namibia 2004: part IV and V). To realize their tasks, the WPA have therefore obtained several powers such as the making of rules for the use of the rural water supply scheme or water point by members and non-members, the authority to prevent any person who does not comply with the rules or the constitution of a water point user association from using such a water point, the authority to adopt measures in order to prevent the wastage of water by any person and the power to plan as well as control the use of communal land in the immediate vicinity of the water point (Republic of Namibia 2004: part V sec. 20). In the case that the WPAs do not manage to deal with any issue they can call on higher management structures. These are the Local Water User Associations (LWA), which are formed by the WPAs of a constituency. The rights and duties of the LWAs are very much the same as the ones of the WPAs (Republic of Namibia 2004: sec. 16).

In the light of these relatively recent legal developments, the communities have received the responsibility and a framework of autonomy for managing collectively a natural resource that is especially not abundant in Namibia. This situation offered the chance to inquire how mechanisms or institutional arrangements were being developed, negotiated and maintained by the communities in order to manage the water resources they normally used.

In order to collect data, anthropological fieldwork was carried out in a rural community in the region of the Sesfontein Constituency (North-West Namibia) for about two and half months (18.12.08 – 27.02.09). In order to select the community for the research project, two main criteria were taken into account. The village should have between 12 and 15 households and they should denote a situation of conflict.[5] In this context the term conflict was broadly understood "as an awareness, by the parties involved, of differences, discrepancies, incompatible wishes, or irreconcilable desires" (Boulding 1962 cited in Sell et. al. 2004: 46) in relation with water issues.

2. Conceptual backgrounds and main objectives

The discussion on what specific kind of institutional conventions leads to a sustainable use of common-pool resources (CPR) has received its major expression in Ostrom's *Governing the Commons: the Evolution of Institutions for Collective Action* (1990).[6] An important message of Ostrom's

[5] Larger communities were not scheduled for the project due to time limitations.

[6] A standard definition of institutions does not exist. It is rather defined in different ways and when studying these definitions, analysts tend to emphasize one element more than the others. Ostrom for example, defines institutions as "prescriptive statements that forbid, require or permit some action or outcome" (Ostrom 1990: 139) and she focuses on the potential constraining mechanism that can achieve sustainable natural resource management by preventing individualism, free-riding and environmental ruin (Lewis 2007: 202). North – one of the most important institutionalists – for his part, defines institutions metaphorically as "the rules of the game in a society" (North 1990: 3). He conceptualizes them as the "humanly devised constrains that shape human interaction" (ibid.). Following a rather economic thought, institutions perform in North's sense the function of reducing

outcomes is not only the reinforcement that self-governing institutions are indeed possible for regulating many types of natural resources, but also that there is a specific framework of institutional arrangements that can be purposively crafted to produce collective action and to achieve a sustainable use of CPRs. Taking her theoretical grounding from the game theory and through a systematically comparison of heterogeneous case studies around the world, Ostrom achieves in identifying the institutional conditions that can lead to a sustainable communal natural resource management. These institutional conditions or 'design principles' are as follows (Ostrom 1990: 90):[7]

1. **Clearly defined boundaries**
   Individuals of households who have rights to withdraw resource units from the CPR must be clearly defined, as must the boundaries of the CPR itself.
2. **Congruence between appropriation and provision rules and local conditions**
   Appropriation rules restricting time, place, technology, and/or quantity of resource units are related to local conditions and to provision rules requiring labour, material, and/or money.
3. **Collective-choice arrangements**
   Most individuals affected by the operational rules can participate in modifying the operational rules.
4. **Monitoring**
   Monitors, who actively audit CPR conditions and appropriator behaviour, are accountable to the appropriators or are the appropriators.
5. **Graduated sanctions**
   Appropriators who violate operational rules are likely to be assessed graduated sanctions (depending on the seriousness and context of the offense) by other appropriators, by officials accountable to these appropriators, or by both.
6. **Conflict-resolution mechanisms**
   Appropriators and their officials have rapid access to low-cost local arenas to resolve conflicts among appropriators of between appropriators and officials.
7. **Minimal recognition of rights to organize**
   The rights of appropriators to devise their own institutions are not challenged by external governmental authorities.

For Common Pool Resources that are parts of larger systems:

8. **Nested enterprises**
   Appropriation, provision, monitoring, enforcement, conflict resolution, and governance activities are organized in multiple layers of nested enterprises.

With her approach, Ostrom stands against the conviction founded in models recommending that privatization or state control are the only ways to avoid an environmental degradation. These models are Hardin's *Tragedy of the Commons* (1968), the *Prisoner's Dilemma Game*, and Mancur Olson's *Logic of Collective Action* (1965). All lead to the prediction that those using CPRs will not cooperate so as to achieve collective benefits. Furthermore, individuals are perceived as being trapped in a static situation, unable to change the rules affecting their incentives.

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transaction costs in monitoring and minimizing inefficiency (Lewis 2007: 202). After analysing several definitions of institutions, Scott proposes that institutions generally "provide guidelines and resources for acting as well as prohibitions and constraints on action" (Scott 2001: 48).

[7] Besides Ostrom, similar approaches and overlapping principles have been developed by Wade 1988 and Baland and Platteau 1996 (see Agrawal 2001 for a discussion of the literature identifying conditions under which groups of self-organized users are successful in managing their commons).

Regardless of Ostrom's explicit warning to use her approach as a scheme for policy projects (Ostrom 2002), it has been directly translated into project documents and serves as guide for taking action for CBNRM strategies.[8] In some parts of Africa, for example, the practical implementation of Ostrom's approach has proven to be anything but easy (for example Juul 2001; Cleaver 2005). However, theoretically, the approach attracts multi-layered criticism by a number of institutional scholars. Cleaver (2002), for example, states that the evolution of institutions for collective action and decision-making may not be a process of selection of mechanisms, which are consciously crafted for that purpose (like Ostrom's approach suggests), but are rather formed through processes of bricolage. That is, a process in which people draw consciously and unconsciously on existing mechanisms (social, cultural, symbolic, resources and relationships) to form institutions for multiple purposes and to affront new situations. Campbell et. al. (2001), argues that the emphasis on the regulatory ability of formal rules for the usage of resources pursued by CPR analysts such as Ostrom has overshadowed that other forms of control, based on tradition and cultural norms, also influence the use of resources. Some authors criticise the assumption made by the CPR school that the environments in which the communities live are relatively stable whereas these variability has to be coped by the resource users (Mehta et. al. 1999); others remarked that the communities are seen as a bounded, relatively homogeneous entity capable of acting collectively in terms of common environmental interests (Leach/ Means/ Scoones 1999).

However, maybe the most interesting point of criticism is the issue of power. The focus on collective actions is said to have distracted attention from the fact that institutions are characterized by conflict, factional division and power politics (Metha et. al. 1999). Nevertheless, surprisingly, the critics have rarely made the attempt to theoretically analyse the role of power in the scope of the development of institutions, but have simply named the deficiency of Ostrom's model by giving examples from the field. In this paper, however, the role of power in the development of institutions will be examined by means of a theoretical construct that has been seldom applied in the communal water resource management: the bargaining theory of institutions by Knight (1992). In Ostrom's model, institutional arrangements occur as a result of the conscious realization of opportunities that can lead to the achievement of collective goals. Individuals cooperate, therefore, after a consideration of costs and benefits of their engagement in binding contracts (cf. Ostrom 1990: 192ff). This means that in order to achieve the institutional conventions, which make them use their resources sustainably and share equally the costs of their agreements, the individuals have to have a certain degree of willingness

[8] In the contents of the Water Resources Management Act No. 24, for example, some of Ostrom's design principles can be recognized. Resource users should define rules for members and non members of a WPA (design principles 1 and 2) and elect a water committee (design principle 3); resource users get the authority to prevent any person who does not comply with the rules or the constitution from using the water point and to adopt measures in order to prevent the wastage of water (design principles 4 and 5); and the water committee should help to solve water conflicts in its management area (design principle 6). Moreover, the WPAs have the autonomy of developing their constitution (design principle 7) and the WPAs can call on higher management structures (the LWA) if they do not deal to manage with any issue (design principle 8).

to do so, besides their differing interests regarding the resource. If the individuals don't have the interest to enter in cooperative relationships with each other, the achievement of any institutional convention for resource management can become very difficult if not impossible. If the achievement of collective goals is not necessarily the primary motivation for institutional development and change, then, institutions can become rather a by-product of strategic conflict over substantive social outcomes (Knight 1992). Institutional development, then, would turn into a contest or a bargaining game determined by the parties' relative abilities – i.e. bargaining power – to force others to act in ways contrary to their unconstrained preferences. In other words, institutional conventions would come into being "not because [individuals] have agreed to them […] but simply because they cannot do better than to do so" (Knight 1992: 127).

In contrast to Ostrom's model, the case study presented in this paper shows empirically that the afore mentioned circumstances of strategic conflict are shaping the situation regarding access and usage of water, and not the interest to achieve collective benefits as implied by Ostrom. Consequently, Knight's theoretical approach is taken as a basis for discussion for the findings regarding the water conflict in the research setting. In that segment, the bargaining strategies and resources of the participants, which are used to impose or defend their interests or their needs will be outlined in particular, since they constitute the mechanisms through which the bargaining game – or rather the process of institutionalisation – is characterized: namely, not through verbal offers and counteroffers within the framework of a water committee or community meeting, but by a sequence of actions and counteractions. With this, the intention is not merely to outline the 'rules of the game', but rather the tactics and strategies through which various actors attempt to legitimate actions – an important demand made by several institutional researchers (cf. Juul 2001: 72 and Lund 2007: 21). Besides this, it is also analysed why one of the central actors of the conflict (the presumed Headman of the community) could afford to maintain a non-cooperative relationship with his neighbours and to act against social embedded institutions i.e. to deny the water to his neighbours arbitrarily by locking the hand pump.[9] Here, following Knight, the Headman's "breakdown values" (the costs of non-cooperation) is depicted and it is discussed to what extent his actions are an exercise of power towards his neighbours in the context of dependence relationships (Emerson 1962).

This paper is to be considered as a contribution to the body of critics, claiming that ideas of CBNRM commonly oversimplify social reality and social process (cf. Cleaver 2005: 3f). Besides power struggles, the environmental uncertainty as the variability of natural resources (Mehta et. al. 1999), and the social heterogeneity in economical terms (cf. Adhikari/ Lovett 2006) (at least until a certain extent), are important aspects that, in this case study, are shaping the development of institutions and are apparently even impeding cooperation among users. To this, the aspect of land use is also addressed since its interconnection with water access is also an important aspect in the conflict of the

[9] A social embedded institution is an institution based on culture and daily practice (Cleaver 2002: 13).

explored community. This should elucidate that developing institutional arrangements for the water use implies at the same time finding conventions for the use of land; otherwise a breeding ground for conflicts can arise. Finally, as the community is not gathering nor negotiating any kind of rules for the water management, it is discussed, if the households in the village are damaging or overusing the water resources in the area because of failing formal institutions.[10]

3. Applied Methods

In order to gain a broad range of insights into the socio-economic and cultural circumstances of the village and, to better understand the present situation of conflict, this study applied several methods for data collection. The research project as such followed an ethnographic approach on-site for a period of approximately five weeks in each community. For this reason, **Participant Observation** in the field was an inherent part of this study. Apart from this, at the beginning of the fieldwork activities in the settlement, an **Ethnographic Census** was carried out in order to gain an acquaintance with the villagers as well as to obtain a general overview of the researched community as quickly as possible. The unit of investigation for conducting the survey was the household. There are several definitions of household (see for example Mc Netting et al. 1984), which cannot be discussed here. However, generally speaking a household can be viewed as a production and consumption unit (Rössler 1999: 149). This study adopts an emic definition of household, which was constructed based on previous interviews in order to record data according to cultural conceptions. Thus, the household has been defined as "a group of people living, farming and normally sharing food together".[11] The census contained several basic questions asking for the age, gender, place of birth, ethnic group, family and migration backgrounds, etc. of each household member. Additionally, the census also inquired about the profession, current occupation and division of labour as well as income strategies of each household. Considering the focus of this project, several questions relating to water issues were formulated inquiring about water fetching habits, amounts, frequency and general water-usage per household. The last question of the census was aimed to scrutinize the specific water problems in the village (*Are there any problems concerning water? YES/NO If YES which?*).

[10] Here, formal institutions are understood "as rules that require exogenous enforcement by a third party or organisation" (Leach et. al. 1997: 238). In the case study, the third party is to be understood as the water committee.

[11] This definition does not include any family members living temporarily or permanently outside the village whom could be considered part of the household: the so-called "de jure" population (Lang & Pauli 2002: 6). For this reason, the participants were asked to mention if there were any children attending schooling outside the village and if there were persons they would consider as household members living outside the community temporarily (or if applicable, permanently). This inquiry was considered to be important since these household members could be receiving financial support originating from the livestock husbandry, which in turn, would have a direct influence on the water consumption. Additionally, this inquiry helped in gaining a general insight into the economy strategies of the households since the household members living outside the community could be sending money remittances to their respective households (see for example Greiner 2008).

In order to analyse the water problems more in detail, the frameworks of the **Extended-case method (ECM)** have been applied. The ECM is defined as the detailed study from specific or chained events from which general theoretical principles can be derived (Mitchell 1983: 192 cited in Rössler 2003). As other studies have shown (compare Rössler 2003), this method is well suited for exploring the development of social conflicts, the negotiating of individual interests, the interpretation and use of rules and norms as well as the arising and the decay of social bonds. As implied in the inductive emphasis of the ECM, a progressive identification of expanded levels of social context has been carried out in order to approach (as much as possible) data saturation (Strauss/ Corbin 1998). Here, the **Semi-structured Interviews**, however, did prove to be very useful as it demonstrated the interviewee that the researcher was interested in a particular subject, but left both the interviewer and the respondent free to follow new leads (Barnard 2006: 212). **Informal conversations** served mainly to obtain additional input for further interviews and to naturally gain a deeper insight in certain aspects of the water problems or conflicts.

Once the problems concerning water had been identified through the census and the supplementing semi-structured interviews, the **Conflict Mapping** (see Hübner-Schmid/ von Borries/ Hasemann/ Schnegg 2003) was a tool to 1) deepened the information about existing water problems or conflicts and 2) to find out if these had certain consequences for the relationship within households or rather between their main representatives (the Heads of households) in the village. More precisely: with this method, it could be determined (by interviewing mainly the Heads of household separately), if the community has been split into certain parties due to different opinions/positions/rivalries or if alliances or neutral positions between certain households (or members of the same) have arisen in the context of the water problems or conflicts.

In addition to the prior, a **Wealth Ranking** was conducted in order to learn 1) what patterns of wealth/poverty the respondents use to classify a specific household as wealthy or poor and/or maybe socially important and 2) how many households are categorized as wealthy or poor. The Wealth Ranking allowed an identification of the opulent and necessitous households and together with the ethnographic census questionnaire as well as the Participant Observation method, it successively permitted a better understanding of the different customs of water consumption within the communities by giving insight into their interests or needs regarding the water resources.

Supplementary to the Conflict Mapping, where rivalries, alliances or neutral positions between the representatives of the households (Heads of household and wife/wives respectively) should be determined, a **Group Network Analysis** was scheduled for the project to explore the relations of social support within the framework of the water problems or conflicts. Hence dependencies, but also cooperation, reciprocity and sympathies between the main representatives of the households could be

assessed in a holistic and systematic way.[12] In addition to the group network analysis, three **Personal Network Analyses** from three members of the water committee were carried out in order to determine what connections/relations between the water committees and other persons, organisations, institutions or other water committees do exist. Within the framework of the water problems or conflicts, it was decisive to gain insight into possible extra communal relations in order to determine if support, advice or mediation was being given to the communities by external (and maybe neutral) community actors or if the villagers were "on their own" with their water problems or potential conflicts. The implementation of this group and individual network analysis, in particular, the selection of the parameters for the analysis, was based upon the methodology proposed by Schnegg & Lang (2001).

4. Description of the Research Setting

4.1. General characteristics of the population

In the case study village, 110 persons were registered through the census carried out in the eight households of the community. From them, 79 (the "the facto" population) live permanently in the village, 12 (the "the jure" population) live permanently outside the community and 19 children are attending school outside the village. Altogether, the people living permanently in the setting constitute 38 women and 41 men. Table 1 shows the amounts and percentages of people registered through the census.

Case Study Village

Total of persons registered	110 (8 households)	
Living permanently in the community	79 (71,81%)	38 women (48,10%) 41 men (51,90%)
Living permanently outside the community	12 (10,1%)	3 women (25%) 3 men (25%)
		5 women (41,6%) 1 man (8,3%)
Children schooling	19 (17,27%)	7 girls (36,8%) 12 boys (63,15%)

Table 1: Amounts and percentages of individuals registered through the census

Through the ethnographic census altogether three different ethnic groups were registered: Herero, Himba and Damara.[13] At the time of the research activities there were three Herero, two Damara, one

[12]The questionnaire included inquiries concerning social support with transport facilities, bull castration, visiting habits and sugar sharing among individuals and households respectively.

[13] Due to the limitations of this report, the history of these ethnic groups cannot be referred to in detail. For further information, see Hahn et. al. 1928 or Malan 1998.

Himba and two Damara/Herero households.[14] The maximum amount of individuals per household with permanent residence was 23. The minimum amount of individuals per household with permanent residence in the community was two. The average of individuals per household with permanent residence was 9,875 (standard deviation: 5,97).

The members of the households with permanent residence in the community slept in grouped huts – what several of them termed – a farm or homestead. The structure of the huts is made of thin trunks and the walls are made with a mixture of cattle dung, ash and sand. The homesteads are also including one kraal[15] for the cattle and one kraal for the goats and sheep. The areas where the huts and kraals are located are not clearly separated.[16]

According to participants, the area had been inhabited a long time before the household constellations were registered by the census. Thus, at the time of the census, the longest length of time spent by any household in the village was 21 years. The two newest households settled a few months before the research activities began (on average, a household has spent 7,87 years residing in the community; standard deviation: 7,04339229). Before the households settled in the village, all of them came from different areas of the Kunene region. A relative common reason for migrating to the village was the search of grazing areas. According to the respective Heads of households, there were overgrazing problems in the areas where they had previously resided. Three of the households settled in the village because the respective heads were employees of an NGO (operating in several countries of the South African region in the field of wild animal conservation[17]) which moved part of its activities to the case study village. As it is closer from there to the animals which are being monitored by the organization.

4.2. Political organization

The Namibian Constitution acknowledges the existence of two parallel law systems: the common law and the customary law system (Article 66). In the region of Sesfontein, besides the regional councillor, who is a representative of a political party and is elected according to the Namibian legislation, there are traditional authorities like Chiefs and Headmen acknowledged by the *The Traditional Authorities Act of 2000.*[18] The Act provides guidelines for the designation, election and recognition of traditional

[14] At this, the Herero people constituted the majority of the population with 49 individuals (44,55%), the second largest group was the Damara with 38 (34,55%), and the Himba with 23 persons (20,91%) were in the minority. In the two mixed households, both Heads married a Damara woman respectively.

[15] Kraal is an Afrikaans and South African English word for an enclosure for cattle or other livestock, located within an African homestead or village surrounded by a palisade, mud wall, or other fencing, roughly circular in form.

[16] For some Herero households, the locations of the huts and kraals within the homestead have a cosmological relevance, like for example the lifeline between the main hut and the cattle kraal. Passing through this sacred space is taboo for non-household members (for elaborate descriptions of the Herero cosmology in this context as well as in a more general one, see Röhreke 2001).

[17] The name of the NGO and its specific activity will be omitted in this work in order to ensure the anonymity of both the NGO and the villagers working for it.

[18] This Act of 2000 repealed further Acts concerning the legislation of traditional authorities such as the Traditional Authorities Act of 1995 and the Traditional Authorities Amendment Act of 1997.

leaders defining their powers, duties and functions among others. However, the Act refers to the supreme leader of a community as its chief and to the leaders under his authority as senior traditional councillors or traditional councillors (Article 10). The title of chief is in fact used, but is not very common among traditional authorities; they prefer traditional titles. In contrast, the designation of senior traditional councillors or traditional councillors are not at all used in daily life, but they correspond to the title of senior Headman or Headman, which is the common denomination in the area of research. Both, the election or appointment of the Chiefs as well as the senior traditional leaders and traditional leaders according to the Act, proceeds in accordance with the customary law of the community they lead (Article 4). According to the legislation, the Chief's functions are related to the administration of the customary law and cultural matters, but also to ensure that natural resources are used on a sustainable basis. The Act requires that Traditional Authorities and their communities should engage in environmental planning to define successes and solutions for environmental issues including any underlying minerals resources. (Article 3)
The senior traditional councillors' and the traditional councillors' functions are to assist the Chief in the performance of his functions and to exercise or perform such other powers, duties or functions as may be delegated or assigned to any of them by the Chief (Article 10 a,b). However, they are clearly subordinated to governmental institutions and regional councils (Article 16).

In the case study village, there are some discrepancies concerning the person who lays claim to be the ruler of the community. Upon first arriving in the village the first person the field researcher introduced himself to, represented himself as the Headman of the community (the Head of HH#3). He supposedly holds this position, because he was the first to settle in the area and because everyone comes to him when asking for solutions for different problems. Nevertheless, the information gathered through the census points to another household (HH#5) having settled in the village before him. Furthermore, three Heads of household (HH#2, HH#5, HH#6) assured that there were people living in the area before the Headman came, but that they had moved away a long time ago.[19] More important is that at least four Heads of household (HH#2, HH#4, HH#5, HH#6) declared, that the Headman was not the real leader of the community. Besides the legal statements of the Traditional Authorities Act of 2000 presented above, they said that the community had not elected him to the office of Headman and that the village was under the direct jurisdiction of a Damara chief settled in an area approximately 30 km away. Moreover, the Heads of households #4 and #5 demanded that one should not refer to the Headman as such, because he was only a common villager.[20]

[19] The Head of HH#6 even saw the Headman as a kind of intruder in the community. He (who denominated himself as a Damara) said that the presumed Headman (which denominated himself as a Herero) was not from the area and that he had come in a customary Damara territory (Damaraland).
[20] In this paper, however, I do refer to him as the Headman in order to make him – as central figure in the conflict in the research site – easier to identify in the description and analysis of the conflict.

According to these informants, the Headman proclaimed himself being the holder of that position without having been legitimately elected by the villagers. It remains unclear why he calls himself the Headman and in what situations he refers to himself as such. It is possible, however, that he does so in pursuit of giving his actions within the water conflict some kind of legitimization. For, the position of the Headman, affords certain entitlements otherwise not permitted to common villagers, like forbidding people to come to the water point or locking the hand pump. Nevertheless, the findings do not indicate that he held a distinct advantage in the water conflict through declaring himself as such. As is shown later, the fact that he refers to himself as the Headman does not have an impediment on the villagers taking actions against his arbitrary acts. Surely, this may be because the villagers were aware of their right of electing their own authorities and that the Headman was therefore a kind of impostor. It is also possible that the reason why he attributes this title to himself has nothing to do with the water conflict at all. It cannot be ruled out, for example, that he was calling himself such in pursuit of status, recognition or inclusively only for vanity.

4.3. General Economic Aspects

Household Income Strategies

Similar to other parts of rural Northwest Namibia (cf. Schnegg 2009), the households in the research setting have other income strategies besides livestock farming (or rather the sale of animals). Regular working salaries and state pensions are relatively important forms of income in the community as well. Remittances, occasional jobs or other kinds of activities play a secondary role, as can be seen in Table 2:

Case Study Village						
HH ID	**Forms of income and amounts**					**Total**
	amounts received through the sale of animals (last month)[21]	*reg. working salaries (monthly)*	*state pensions (monthly)*	*remittances (last month)*	*occasional jobs/ other activities (last month)*	
HH#1	-	1 x 1200 N$ + 1 x 650 N$	3 x 450 N$	(fruits or vegetables only irregularly)	-	3200 N$
HH#2	400 N$ (1 goat)	1 x 700 N$	-	-	-	1100 N$
HH#3	2560 N$ (7 goats)	-	1 x 450 N$	(money (amount unknown), clothes, fruits and/ or vegetables	500 N$ (borrowed) + 100 N$ (selling tobac-	3610 N$

[21] The number of animals sold by an individual household depends on the respective day-to-day necessities of that household, on the amounts of other income strategies (when existent) and if money is urgently needed for purposes besides the regular household supplies. This makes an estimation of the monthly household income in the community very difficult; the time pattern of one month – namely one month before the correspondent interview – served only as a reference for sampling the sale of animals within a set period of time in order to gain at least an impression of the significance of the money incomes through this activity. A systematic day-to-day assessment of household consumption patterns would have been impossible to achieve during the research activities, as such a procedure would have implied methodological, logistical and financial aspects (see for example Pröpper 2009) not foreseen within the time and budget frameworks of the research project.

				only irregularly)	co)	
HH#4	5000N$ (2 cows) + 300 N$ (2 goats)	-	-	-	-	5300 N$
HH#5	-	1 x 700 N$	2 x 450 N$	-	-	1600 N$
HH#6	600 N$ (2 goats)	1 x 700 N$ + 1 x 400 N$	450 N$	-	150 N$ (babysitting)	2300 N$
HH#7	200 N$ (1 goat)	1 x 600 N$	-	-	-	800 N$
HH#8	200 N$ (1 goat)	-	-	-	-	200 N$
					Total:	18100 N$

Table 2: Forms of income and amounts in *Village A*

Division of Labour

In the researched community, those individuals without employment dedicated their time to farming activities irrespective of their gender. However, some domestic tasks are usually carried out by the women, for example, milking cows and goats (often twice a day), collecting firewood for cooking (as necessary), cooking and taking care of children. Concerning water issues, the women are usually the ones who fetch the drinking water for the household. The heads of households and young men (inclusive those which don't attend school), on the other hand, are usually the ones who bring the cattle and goats to graze and to drink water at natural water fountains or at the water point in the respective villages. It is also the task of men to castrate the male animals when necessary or to slaughter a cow or goat in the framework of a funeral or marriage or just at home. Specifically the Heads of household are usually the ones to conduct the trading activities of the livestock. The prices for the animals are usually negotiated between the owner and the purchaser and depend mostly on the size and health of the animal in question.

To a relatively equal degree, men and women carry out the task of separating small animals from the milking cows along with the goats and sheep from the cattle at the household's kraal. If the children are on holiday from school, they usually help with collecting firewood, bringing the goats to graze and fetching water for their households.

Results of the Wealth Ranking

The common criteria used by the participants to classify a person in their respective community as wealthy or poor is based on the number of livestock the person in mention owns. Specifically, the number of cattle is attached an additional importance, because apart from their higher value, they also confer prestige to the owner. Although working salaries or state pensions are an important means of income for certain households (like for example HH#1, see Table 2), they are not seen as a determining criteria for the rank of a person as wealthy or impoverished.

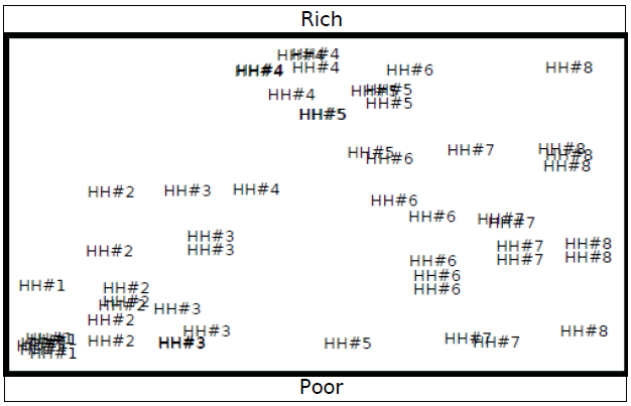

Figure 1: Joined results of the Wealth Ranking in *Village A*

Figure 1 shows spatially how the participants of the wealth ranking positioned the households represented in cards over a board.[22] The vertical distances between the households correspond to the proportions of wealth differences between the households. According to the figure, the household commonly perceived as the richest in the community is HH#4, followed by HH#5.[23] HH#1, in contrast, is perceived clearly as the poorest household in the settlement. HH#2 is perceived to be wealthier than HH#1, and HH#3 is perceived to be similarly wealthy as HH#1, however, these two are still considered to be poor. HH#6, HH#7 and HH#8 are positioned in-between these extremes and are perceived as being equal in wealth. These three households are considered neither rich nor poor.

The participants' estimations depicted in the image coincide approximately with the number of animals, which were assessed through the ethnographic census questionnaire for every household.[24] HH#4, the richest in the community according to Figure 1, owns more animals than the others, especially in relation with the number of cattle and goats. HH#1, the poorest in the community, does not own any cattle and has fewer animals than his neighbours (see Table 3).

Wealth Ranking Position	**Number of animals assessed through the census**					**Total**
	Cattle	*Goats*	*Sheep*	*Donkeys*	*Horses*	
HH#4 ("richest")	26	63	11	0	0	100
HH#5 ("2nd richest")	18	14	10	2	2	46
HH#6 / HH#7 / HH#8 ("average")	6 / 7 / 9	30 / 23 / 40	6 / 11 / 7	3 / 4 / 7	1 / 0 / 0	76 / 45 / 73
HH#2 / HH#3 ("poor")	10 / 3	26 / 23	2 / 9	4 / 5	0	42 / 45
HH#1("poorest")	0	29	0	7	0	36

Table 3: Ranking positions vs. number of animals assessed through the census

5. General water issues

5.1. Infrastructure

[22] This method involved giving the interviewees cards with the names of each Head of household so they could identify the households and rank them during the interview. However, for the analysis and presentation of the outcomes of this method, the names on the cards have been replaced by the household identification number in order to ensure the anonymity of the participants. The outcomes of each separated interview were digitalized with a graphic program and put over different planes. Figure 1 shows these planes grouped on each other.

[23] In Figure 1: Joined results of the Wealth Ranking in *Village A*it can be observed that HH#5 was perceived as poor by one participant. This participant was the oldest son of the Head of HH#5. For him the number of animals was not necessarily a criterion of prosperity. He perceived his household as "poor", since there were too many children and few persons having a working salary, so his own declaration. The "richest" household for him was HH#6 instead, a household where two persons were having a wage.

[24] The participants could only rank their neighbors based on visual estimations. Rough number appraisals, however, could not be carried out by the interviewees.

At the time of the research activities in the village, there were two water points with a respective hand pump installed. The hand pumps were donated by a humanitarian organisation in mid-2005 and at the end of 2006. The water points were constructed where open water holes had formerly been dug by some members of the community. The water point, which was finished in mid-2005 ("W.P.1" in Figure 2 below), was having problems since 2007. According to the villagers, it was not the hand pump itself, but rather something in the underground, which blocked the water from being pumped up. However, water could be fetched by pulling it up through a hole in the cement basis using a bucket tied to a rope. The water in this hole was, however, not very clean as the hole remained open. Thus, the water point having been used by the community was the one that the Headman affirms to be his own ("W.P.2" in Figure 2 below).

This water point was commonly used for fetching water for human consumption and for several household activities. The water point also had a canal where water can be pumped up for the animals. Nevertheless, some households frequently brought their livestock (mostly their cattle, goats and sheep) to natural water fountains surrounding the community (located approximately 1,5 km and 2,5 km away respectively). This occurs not necessarily to avoid conflict with the Headman (like some villagers suggested), but rather principally because they have to graze outside the village grounds anyway due to overgrazing problems in the community area.[25] The natural water fountain located ca. 1,5km away ("Nat. W.P.1" in Figure 2 below) is an enclosed basin between two mountains in which water rain accumulates. It is mainly used for the sheep and goats. In contrast, at the second natural water point ("Nat. W.P.2" in the same figure), water flows from down below up to the surface forming a small stream with small basins (2 m^2 to 4 m^2); this natural water spring is mainly used for watering the cattle.[26]

[25] The villagers, who own donkeys, do not bring the animals in mention to the natural water fountains. The animals normally walk around the village and go to the water point to drink on their own. Anyone who goes to fetch water or passes by at the water point usually pumps some water for them if they are standing at it.

[26] The water points in the village have not been depicted in Figure 2, in order to keep the research setting unidentifiable.

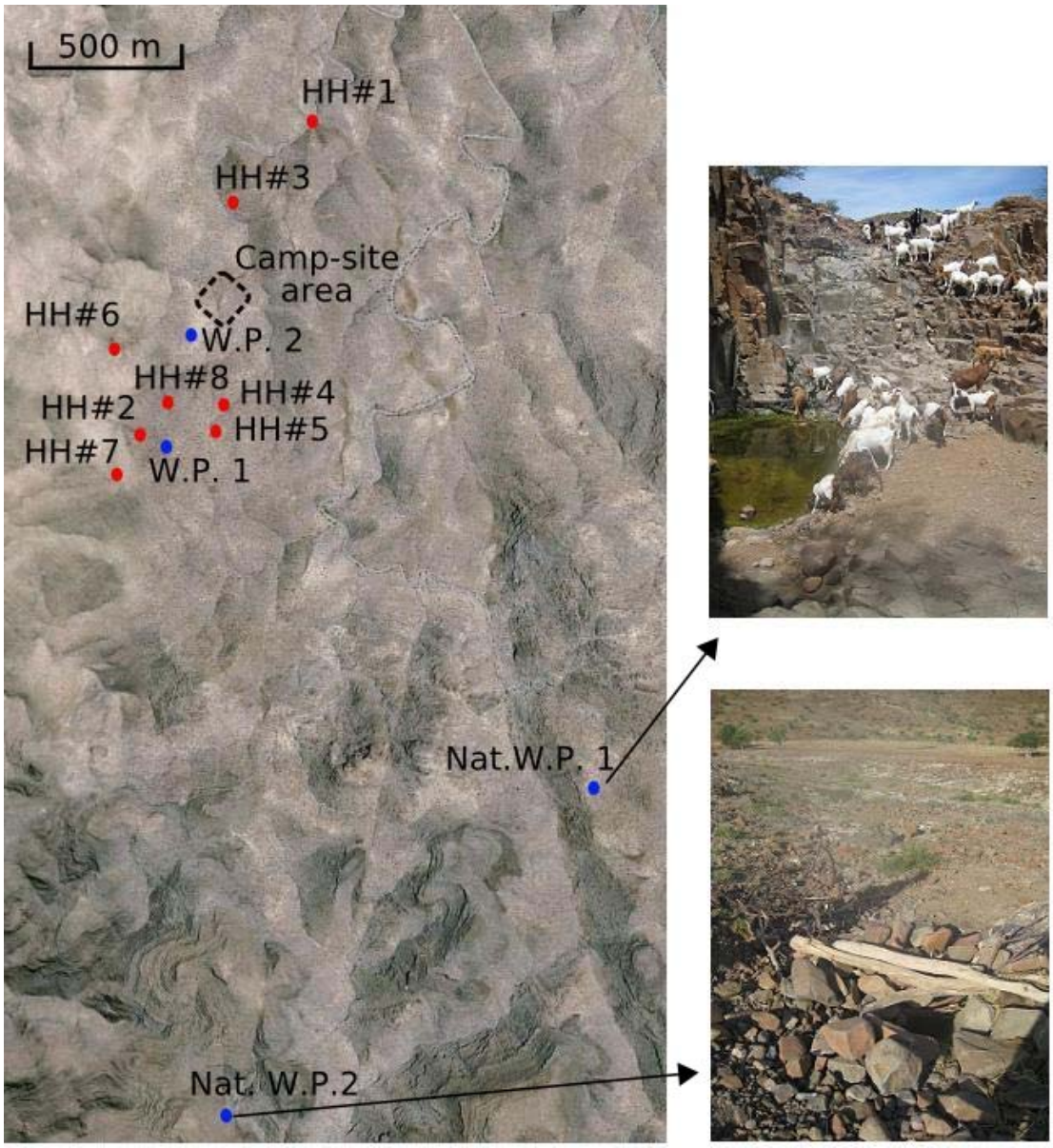

Figure 2: Map of village and location of natural water fountains (Base map: Google Earth)

5.2. Water usage

Human Consumption

In Table 1 the water fetching patterns of the community according to the declarations of the participants are depicted.

Case Study Village

HH ID	No. of members living permanently in the com.	Person who fetches water (rel. to the Head of HH)	Age	Mean of fetching water	Amount of water fetched	Frequency of fetching water
HH#1	5	Wife Grandson	67 31	By foot Donkey-cart	25 liter 200 to 300 liter	2 x day Only if not working
HH#2	7	Wife	26	By foot	25 liter	2 x day

		(Head)	58	Car/ Donkey-cart	200 to 300 liter	Sporadically
HH#3	10	Wife	48	By foot	25 liter	2 x day
		Son	22	Donkey-cart	200 to 300 liter	Sporadically
		Wife	45	By foot	25 liter	2 x day
HH#4	14	Sister	45	By foot	25 liter	2 x day
		every child	5-20	By foot	carry as much as they can	1 x day
		Wife	64	By foot	25 liter	2 x day
HH#5	23	Daughter	39	By foot	25 liter	2 x day
		every child	5-20	By foot	carry as much as they can	1 x day
HH#6	9	Uncle	39	Donkey-cart	200 to 300 liter	1 x week
HH#7	2	Wife	27	By foot	25 liter	2 x day
HH#8	9	every child	5 -17	By foot	carry as much as they can	2 or 3 x day

Table 1: Water fetching patterns in the case study village.

One can estimate that almost every household in the village consumes approximately 50 liters of water daily. The largest households in the community consume approximately 75 liters. The water is used for drinking, cooking, washing pots and for personal hygiene. For showers the villagers fetch extra water. The water is commonly fetched by the wives of the Heads of household and their children, mostly in the larger households. The women carry a 25 liter container on top of their heads and the children carry smaller recipients with their arms. If men go to fetch water (this occurs on an irregular basis), they use donkey-carts for that purpose.

Animal Consumption

Surely, the most quantity of water is needed for the livestock, above all the cattle. The amount of water a cow drinks depends on the size and milk yield, quantity of dry matter consumed, temperature and relative humidity of the environment, temperature of the water, quality and availability of the water, and amount of moisture in the feed (Looper/ Waldner 2007). Considering the temperature in the region during the research activities (between 25° C and 30°C approximately), an adult cow can consume between 90 and 135 Liters of water per day. Weaned dairy heifers consume approximately 3,5 to 5,5 Liters of water per 100 pounds of body weight (they can weigh up to 1200 lbs.) (ibid.). Depending on the size and weight, an adult goat requires 2 to 3 liters, a sheep 3 to 5 liters, and donkeys and horses 18 to 35 liters. This means that the more animals a person owns, the more water this individual needs in order to support his animals. In other words, the richer a person is (above all in numbers of cattle), the more interest this person has regarding the access to water.

All registered households in the community bring their animals one-time daily to drink water, either to the (Headman's) water point in the village or to a natural water fountain. A systematic assessment of the number of adult cows, heifers, adult goats, kids, etc. and their respective weights was not carried out. Nevertheless, considering that half of the cattle of the richest villager in the case study village is of adult age and considering that only these cattle (13 exemplars) consume between 1170 and 1755 liters of water daily, one can assume that the amounts of water needed to care for these animals is considerable.

In the settlement, besides the households' livestock, eight dromedaries from the NGO also use the water point in the village. Comparatively, under certain conditions the dromedaries can use less water than goats and sheep (cf. Gihad et. al. 1989), but they can also drink 8 liters of water daily or more depending on the temperature (cf. Gutiérrez et. al. 2002: 440). Due to their number, their water consumption can be similar or less than the poor households in the community.

Gardening

Since the cultivation of gardens in the village is very limited, no substantial quantities of water is used for this activity. The Headman (the only person who owns and cultivates a garden) fetches water with his car for his garden using eight 25-liter containers. Nevertheless, the frequency of transporting water from the water point to the garden with the vehicle is quite irregular as gasoline is needed. For this reason, he only uses a small part of it for cultivating tobacco; an activity not carried out during the whole year.

Other (The Campsite)

The quantity of water used for the campsite situated in case study village could not be precisely assessed. The campsite has a container with the capacity to store 1000 liters of water in order to provide water for the shower and the toilet. Nevertheless, the container is never filled up totally due to money shortages for the machine pump used for that purpose and because it has not been working efficiently due to a mechanical defect. If there is no gasoline for the pump, several 25 liter containers are used by the Headman to transport the water to the campsite's 1000 liter container (by car or donkey-cart). Moreover, water is only pumped or transported when tourists visit the campsite and not enough water is available in the mentioned container. Since tourists only visited the campsite on an irregular basis and in varying numbers, a rough estimation is therefore even more difficult to make. However, it is important to underline that the hand pump used at the water point has to be closed if the water machine pump is used, because otherwise the machine pump does not pump water properly (which is, in turn, a source of conflict in the village). Therefore, the machine pump is connected to a pipe coming from the underground at the water point.

5.3. Water management regulations

As already mentioned, the two hand pumps in the village were donated and installed by a humanitarian organisation in mid-2005 and at the end of 2006 respectively. The installation of the hand pumps followed after certain villagers of the community approached the organisation for support. These community members were the Head of HH#5, who was the first person to approach the organisation, and the Headman, who organized that the second hand pump got installed. The decision of approaching the organisation, however, was taken by these persons separately.

It was not until the second hand pump was installed at the Headman's water point, however, that the members of the organisation are said to have told the villagers that both of the water points had to be managed by a common water committee, according to the Head of HH#5. The Headman stated that, after finishing the installation of the second hand pump, the humanitarian organisation had carried out a workshop for the villagers, in which some advice was given for how to form a water committee (W.C.) as well as how to manage the hand pump. He added that the water committee was democratically elected, and that the representatives of the humanitarian organisation designated him as the Chairman. This was reinforced by two other committee members (the daughter of the Head of HH#6 and a young man from HH#5). After the installation of both hand pumps, however, the persons that had approached the humanitarian organisation (the Head of HH#5 and the Headman) were instructed how to repair and maintain them.

The information collected in relation to the establishment of the water committee showed one inconsistency. While the declarations of four participants interviewed for this purpose coincided with the persons and their respective functions in the water committee, the Headman's declaration differed from them in one person: the treasurer of the water committee (see Table 2).[27]

Alleged member	**Function within the W.C.**	**Informants and their corresponded declarations**		
		Chairman *(Headman)*	*Organizer & Treasurer 1** *(Adult daughter of Head of HH#6 & Wife of Head of HH#1)*	*Secretary 2* *(Adult son of Head of HH#5)*
Headman (HH#3)	Chairman	●	●	●
Wife of Head of HH#1	Treasurer 1		●	●
Head of HH#4	Treasurer 2		●	●
Headman's wife (HH#3)	Treasurer (?)	●		
Adult daughter of Headman (HH#3)	Secretary 1	●	●	●
Adult son of Head of HH#5	Secretary 2	●	●	●
Adult son of Head of HH#5	Organizer 1	●	●	●
Adult daughter of Head of HH#6	Organizer 2	●	●	●

*Interview has been carried out with both of them at the same time.

Table 2: Members of the water committee and their functions according to the Headman and three other water committee members in the village.

According to the organizer, the persons for the positions "Treasurer 1" and "Treasurer 2" in the table were democratically elected by the community within the framework of the humanitarian organization's intervention, while some time later, the Headman's wife was appointed personally by him for that position. The reason for this later appointment could not be cleared, but it is possible that in doing so, the Headman aimed to gain more control over any money contributions either if for the maintenance of his water point or for other purposes. It is also important to mention that after its establishment, the water committee did not hold even one meeting and that its members did not exercise their functions including the wife of the Headman.[28] The reasons for this, as described more

[27] The persons depicted in Table 2 were chosen to collect information regarding the composition of the water committee as they were themselves part of the same.

[28] According to him, his wife did not try to collect money anymore because no one wanted to cooperate.

elaborately in section 6, seem to be rooted in the individual interests that led to the approach of the humanitarian organization and in the development of the water conflict.

According to one of the Secretaries (an adult son of the Head of HH#5), the following tasks are supposed to be linked to the functions displayed in the table above:

Organizers: to keep the surroundings of the water points clean as well as the drinking canal for the animals. Moreover, they are responsible for pumping water into the canal if it is empty.

Secretaries: to register the problems concerning the water management and the functioning of the water pumps.

Treasurers: to collect and administer money for the maintenance of the water points and their hand pumps.

Chairperson: to collect the problems registered by the Secretaries, organize meetings and if necessary contact the humanitarian organization.

The first conversation about the specific rules concerning the water management in the village was carried out with the Headman. According to him, the members of the humanitarian organization gave him personally a list of rules exclusively for his water point and that he announced to the community. However, in a later interview conducted with one of his daughters who is also secretary of the water point, she claimed her father wrote the regulations himself. The Headman, who was present at the time of the interview (the conversation could only be carried out in his presence, because he ordered his daughter not to give any interview in his absence), confirmed that he had composed the rules himself and then had presented them to the humanitarian organisation before introducing them to the community.

On the other hand, the second secretary of the water point (an adult son of the Head of HH#5, who constructed the "W.P.1") affirmed instead that the rules were developed by the community itself, but with the assistance of the humanitarian organisation and that some of the rules, which were conceived originally for "W.P.2", should be taken as guidelines also for using the "W.P.1". Other Committee members – one organizer and one treasurer (the daughter of the Head of HH#6 and the wife of the Head of HH#1, respectively) – stated in an interview conducted with both of them, in turn, that the humanitarian organisation composed the rules, nevertheless only for "W.P.2". The organisation, they explained, gave the regulations to them within the framework of a community meeting, the same day they handed over the second hand pump to the village at the end of 2006.

Why the Headman assured first that, the humanitarian organisation had given him the rules and later that he had actually created them, could have been a strategy to reinforce his ruler status since his legitimation as Headman had been questioned by several villagers, as already mentioned. Taking into account that the intervention of the humanitarian organisation took place over a year ago, the subtle dissimilarities in the responses of the secretary, the organizer and the treasurer may be the result of varying recollections. However, the contradictions in the Headman's statements versus the informa-

tion of the other participants leave the impression that it is less plausible that he was the real or the sole composer of the water point rules. Most probable is that the community developed the rules with the assistance of the humanitarian organisation or that the rules were handed over to them by the organisation.

A written list of the regulations concerning water management in the village (and the members and functions of the water committee as well) did presumably exist, but was not available during the research activities. The Headman assured that he was in possession of these documents somewhere in his household. Nevertheless, when being asked on numerous occasions to see the documents, he responded that he had not found them yet. In light of this, the rules were recorded by interviewing the villagers, especially members of the water committee, as it was assumed that they would know the rules better than non-members: the chairman (the Headman), one of the organizers (a daughter of the Head of HH#6) one of the treasurers (the wife of the Head of HH#1) and one of the secretaries (a young man of HH#5). Table 3 shows the outcomes of the respective interviews.

	Informants and their corresponded declarations		
Rule	*Chairman* *(Headman)*	*Organizer & Treasurer 1** *(Adult daughter of Head of HH#6 & Wife of Head of HH#1)*	*Secretary 2* *(Adult son of Head of HH#5)*
From 8 a.m. to 12 p.m. people should fetch water for private use only. Animals should be brought to drink water only in the afternoon.		•	
Do not wash clothes or take a shower in the canal of the WP (only down river from where the WP is located).	•	•	•
The WP and its surrounding area must be kept clean.	•	•	•
Every morning there must be an adequate amount of clean water in the canal.	•		
Owners must fill the canal with water for their animals.	•	•	
The canal has to be full every time the owners leave the WP.		•	
People should not fetch water while animals are drinking.	•		
Trees around the W.P. do not have to be cut.	•		

*Interview has been carried out with both of them at the same time.

Table 3: Rules for the water management in the case study village.

As it can be observed in the table, there were some dissimilarities between the declarations of the interviewees. With regards to the prior, it is important to consider, that the recording of the rules implied a methodological difficulty: the participants were asked to mention rules that seemed to have been created during the intervention of the humanitarian organisation (almost two years before the research activities) and since then never renegotiated or discussed within the framework of the water committee or community meeting, and – according to observations and interviews in the field – not even being

followed or implemented (with some exceptions in the rules concerning the hygiene at the water point, where the participants coincided the most).

A way to reduce these dissimilarities (besides the implementation of group interviews, which were generally excluded from the project in order to prevent any kind of confrontations within the villagers) could have been to show each participant the list of rules collected from a previous interviewee. This meant for example, to have shown the organizer and the treasurer the rules recorded in the interview with the Headman (without telling them that the Headman was the author of them) so that they could have been compared with the rules they have previously mentioned. In doing so, it would have been possible that they would have declared if any rule was superfluous or wrong or if any rule was missing according to their judgement. The same procedure could have been repeated several times (at best interviewing also non-members of the water committee that were present when the rules have been developed) until a consensus about the water management regulations would have been reached. Nevertheless, two important reasons argued against this procedure: first, the unpredictable amount of time that would have been necessary for this undertaking. And second, that the rules depicted in the table were not the source of conflict in the village anyway. Hence, in the light of the time limitations of the project and the quite intricate water conflict found in the community, it has been decided to save time inquiring for it more in detail and understand its different aspects.

6. The water conflict in the Case Study Village

A few days after the arrival in the village, it could be ascertained that the water problems in the community were more complex and serious than earlier recorded during the prior scoping visit. The most frequent issue registered through the census questionnaire, the semi-structured interviews and the Conflict Mapping, was that the Headman had put a lock on the hand pump several times before our arrival. However, the participants declared that the hand pump only had remained locked for a minimum of two and maximum of four days, before the Headman opens it again. Numerous aspects played various yet altogether important roles in the water conflict in general. During the fieldwork activities and the analysis of the gathered data, it could be determined that some of these aspects were having a multi-layered influence in the dynamics of the conflict and that some of them were related to one another. In this section, these aspects are depicted along with the chain of events and the actors that have shaped the water conflict in the case study village.

Some Antecedents

Considering the history of the case study village, the first serious incident related with water issues seemed to be a fight between the Head of HH#5 and the Headman in the year 2002. Before this incident, the Head of HH#5 had decided to dig a water hole in the village, because the natural fountains

that his household was using to fetch water for cooking, washing etc. were too far away.[29] The Head of HH#5 never wanted to move closer to the water fountains, because this would have meant moving further away from the main road, which is the only way to catch a lift to the shops, to the hospital etc.

At that time, however, a water hole owned by the Headman already existed in the village. This, in turn, was the reason why the Head of HH#5 did not want to ask the Headman for permission to use it: he did not want to be dependent on him.[30] Therefore, he decided to begin digging an additional water hole closer to his household. Nevertheless, there were two problems with his choice of action. First, he did not consult with the Headman and second, the water hole he was digging was located upstream on the same river where the Headman's water point is situated.

When the Head of HH#5 began with the digging, the Headman was absent selling some of his animals in Sesfontein (an activity that can take several weeks). The Head of HH#5 approached a humanitarian organisation for technical support since he wanted to install a hand pump over the water hole. Some time later, the humanitarian workers came to the settlement. However, the Headman prevented a meeting between the two parties. According to the Head of HH#5, the members of the organisation came a few days after the Headman had come back to the village from selling some of his animals. When they arrived, they met the Headman and asked him for the Head of HH#5. It was then that the Headman came to know about his co-villager's intentions of constructing a water point. Therefore, so the Head of HH#5 continued, the Headman told the humanitarian workers that the person they were looking for was not living in the village. Thereupon, the Headman is said to have come to his household and to have reproached him furiously. For, he did not have any permission to call the humanitarian organisation and to construct a water hole in his premises. The Headman then forbade him to finish the water hole he was digging with the argument that the Headman's water hole would dry up as a consequence. In the discussion, the Head of HH#5 lost his temper because of the Headman's prohibition, but above all because he had misled the humanitarian workers and told them to leave. Finally, the heated discussion ended with a fight, which the Head of HH#5 began by punching the Headman in the face.

Regarding to the Head of HH#4, a few days after the incidenta meeting with the Herero Headmen was called by the village Headman himself. It took place in the village from which he originates (42 km away from the research site). There, the traditional authorities are said to have given the advice to the participants in the meeting to cooperate with one another and to work together in order to supply the community with water. All Heads of households that made up the village at that time were present: HH#1, HH#3 (the Headman's household), HH#4, HH#5 and the household that left the settlement in 2006, HH-X.

[29] Bringing the animals to the water fountains, in contrast, did not constitute a big problem since his household was used to taking the cattle and the goats out of the village to graze anyway. Apart from the Head of HH#5, two other households were using the natural fountains for their animals and for human consumption. These were HH#4 and another household (HH-X) that moved sometime in 2006.

[30] The Headman was already sharing the water hole with HH#1: the household of his wife's sister.

Nevertheless, the tensions appeared to have remained, because the households that were using the natural fountains (HH#4, HH#5 and HH-X) did eventually construct a water point in 2005 independent of the Headman's wishes. This water point is identified as "W.P.1" in Figure 2 above. In contrast to the further rather individualistic enterprise of the Head of HH#5, this time the construction of the water point was a joint venture between the Heads of households already mentioned, whereby the Head of HH#4 was the one, who motivated the other two men to dig the water hole. In this undertaking, the humanitarian organisation came into play again. The Head of HH#5 managed to bring some humanitarian workers to the village (from the same organisation he approached in the past) in order to install a hand pump over the water hole the three men had previously dug. This time, the Headman could not have any problem with the construction of the water point since it was located in another river far away from his, which implied, in turn, that the water of his water hole would not be affected. The problems, however, came approximately two years later, when the water point in mention ("W.P.1") was damaged. This situation will be depicted in the next section.

The Constrained Usability of the Water Point ("W.P.1") and its Consequences

The "W.P.1" worked well until the beginning of 2007, shortly after the Headman managed to install (also with the help of the humanitarian organisation) a hand pump over his water point as well ("W.P.2" in Figure 2 above). The Headman declared that he had approached the humanitarian organisation, because he needed a hand pump for himself as his water machine pump was seriously damaged during the rainy season ending 2005. According to his statement, the government gave him the machine pump in support of his initiative to construct the campsite. When the machine pump was damaged, he was not able to repair it due to money shortages. Support from the government in this matter was not to be expected, as the officials told him when he got the machine pump that he would be responsible for the repair by his own means in case of damage.

Regarding the damage of the water point "W.P.1", according to the Head of HH#4, it was not the hand pump itself, but rather something in the underground preventing water from being pumped up. As already told, water could still be fetched by pulling it up through a hole in the cement basis using a bucket tied to a rope, but some villagers avoided consuming the water because it was polluted (due to the open hole). Before the water point "W.P.1" became unusable, HH#4 together with HH#5 and HH#2 (which settled in the village in 2005) were using it actively for human consumption. The animals, in turn, were still being brought to the natural water fountains so that they could graze in the surroundings as well. The animals were only brought to the water point in mention if water scarcity at the water fountains was prevailing.

According to a declaration of the Head of HH#4, however, the constrained usability of the water point "W.P.1" together with the mainly seasonal-conditioned water scarcity at the natural water fountains forced the villagers to bring their animals to the Headman's water point. When the water point "W.P.1" was damaged, its users asked the Headman for permission in order to fetch water at his water

point. According to the Head of HH#5, the Headman was not very enthusiastic about this and he only tolerated it reluctantly.

Nevertheless, in some cases the Headman seemed not to tolerate it at all. The household members of HH#7 were told by the Headman not to come to the water point "W.P.2" the first day they settled in the village (sometime in April 2008).[31] Moreover, the Head of HH#2 declared that the Headman used to throw stones at the animals if they came too close to his water point. The sons of HH#4 said, in turn, that they were chased away by the Headman several times when they brought their goats to his water point and that he threatened to lock the hand pump if they should bring the animals again. If the Headman was in fact fulfilling his threat of locking the hand pump, it was however, difficult to prove. On the one hand, the Head of HH#4 confirmed that the Headman was indeed locking the hand pump, but he could only speculate that the reason was that he and the other households used his water during the dry season for their animals as the Headman never told them why he locked it. He assured, though, that the frictions and discussions with the Headman regarding water in general increased above all during these periods of time, when, according to several participants, less water could be pumped up at his water point.

On the other hand, during an interview with the Headman, he told me that the hand pump was in fact being locked, but only sometimes during the rainy season and with the previous consultation of the community. He said that the decision of locking the hand pump with a padlock was always discussed within the framework of a community meeting in order to preserve the water in the village. Nevertheless, there is an important inconsistency: no participant could reinforce that these reunions actually took place. Additionally, other villagers and the Headman himself mentioned that the water committee in the village had not met since the day of its creation, beginning in 2007. Accordingly, if the hand pump was indeed being locked during the rainy season, all indications pointed to the community not having been consulted. If the hand pump was in fact being locked during the dry season (as the Head of HH#4 declared), in turn, it would thus be a more serious act. For, the Headman would be denying his co-villagers the access to water arbitrarily in times of need.

The Overgrazing Problems in the Village and its Relation with the Water Conflict

According to all Heads of household, there are acute overgrazing problems around the water point and the immediate surroundings of the settlement. For this reason, for several households it is not necessarily a disadvantage to take the animals to the natural water fountains although there is a functioning water point in the village, because they have to take them out of the community area anyway in order to graze. Altogether, this routine is practiced by HH#4, HH#5, HH#2 and HH#7 whereby they support each other in this task, as already mentioned.[32] HH#1, HH#6 and the Headman's household (HH#3)

[31] Nevertheless, they were using – like the other households – the water hole when water scarcity at the natural water fountains was prevailing.

[32] HH#8 lives like the other households on the side closer to the water fountains. However, the woman who is usually in charge of the animals (because her spouse spends a lot of time in the bush due to his work as tracker),

live – in comparison to the other households – very far away from the natural fountains (compare Figure 2 above). They use other areas in the surroundings of the community for grazing, but bring their animals to the water point in the village.

Regarding the grazing practices of the households no conflict between them could be registered except between the Headman and HH#6. According to the Head of HH#6, his wife wanted to take the animals to the area where the Headman's herd used to graze, because she had sighted a lion in the direction in which her household used to take the animals to pasture.[33] She is said to have asked the Headman if she could bring the animals to the area in mention, but he answered that if she did bring them there, he would lock the hand pump. Despite the Headman's warning, the Head of HH#6 continued, she took the animals in the direction of the Headman's herd and the next day the hand pump was indeed locked. According to this, it seems the Headman wanted to avoid the risk of overgrazing by sharing his pasturing area with another household.

Similar incidents like the previous one were not assessed, but the overgrazing problems in general seem to be a reason for the Headman locking the hand pump. Once, the Headman admitted openly to the researcher that it was his own decision to lock it (without consulting the community), because he wanted to solve the overgrazing problems. The reason behind this was to force the villagers to take their livestock to other areas so that the grazes around the water point and in the immediate surroundings of the village can recover. He justified his action as an absolute necessary evil for the community in general. He said according to the translation of the researcher's field assistant: "if I don't lock the hand pump, there will be no grazes and the animals will die". Here, assuming that the Headman really locks the hand pump for this reason,[34] it is comprehensible that he, as livestock owner, could have an interest (like surely the other households in the case study village as well) in not having to graze far away from the settlement since this implies covering long walking distances and maybe also the danger of encountering wild animals (like lions or cheetahs) that could attack the cattle or goats etc. Nevertheless, in this matter it is arguable to what extent his individual decision of denying the access to the other villagers arbitrarily and without consent, would alone contribute to solving the overgrazing problem.

The Headman's Claims of Ownership over the Water Point and its Contradictions

There are some contradictions within the Headman's claims of ownership over the water point. First, the Headman's discourse of ownership over the water hole has been challenged and second, the hand pump installed over it was donated with the intention of being managed by the community as a whole.

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takes the animals to the Headman's water point too. As they were new in the village, they were not joining the other households in going to the natural water fountains.

[33] The interviewee was in the bush tracking animals for the NGO at the time when the incident occurred. That's why he was not involved directly in the happenings.

[34] It could not be expected that the Headman only tells the truth considering the inconsistencies in relation with his first reason for locking the hand pump (see previous section).

During the interviews, the Headman assured that he was the owner of the water point, because he was the only one, who dug it.[35] Nevertheless, the Head of HH#2 affirmed having helped the Headman personally with the enterprise. To this, he added that there were two persons (both relatives of the Headman) – now living in another village – that could confirm that he helped him with the construction of the water hole. Although the Head of HH#6 could not confirm that the Head of HH#2 had indeed helped the Headman, he instead affirmed that a person now living in Sesfontein was the one who began to dig the water hole, but gave up because he did not have the proper tools for the job. The rest of the Head of households interviewed could not confirm the declarations of the Heads of HH#2 and HH#6 respectively. They only knew that the Headman was the only one who had dug the hole. Only a young man member of HH#1 confirmed that the Headman was not the only one who dug the waterhole. His father, who passed away some years ago, helped him with its construction.

During an interview with the Headman concerning the ownership of the water point, he showed the author several pictures in which he appeared alone digging the hole in order to prove that no one helped him and that therefore, the water point belonged to him. A couple of weeks later while "hanging out" (see Russell 2006: 368f) at the water point, a young man showed the author a picture. He had taken it from a notebook from the Headman's adolescent daughter while the young girl was talking with other girls some meters away from him. The image was similar to the pictures the Headman showed the researcher the day of the interview with a man visible digging a hole (but not the Headman himself!). The young man was asked for the man in the photograph and answered that he was the deceased father of the young man in HH#1. Subsequently, I asked the young man if his father did in fact help the Headman with the digging of the water hole and he answered affirmatively. His father had died a few months after the water hole was finished. The Head of HH#2, who affirmed having helped the Headman with the water hole, knew also of this man, but he did not mention him before, because talking about deceased persons is commonly avoided in the regional culture.

Furthermore, after the humanitarian organisation installed the hand pump over the Headman's water hole, its workers were said to have announced that not only the Headman's hand pump, but also the hand pump that had already been installed in the village, should be managed by the water committee, according to the Head of HH#5. This, however, seemed not to be expected by the Headman from the beginning. As noted above, the Headman approached the humanitarian organisation, because he needed a hand pump for himself and not for the whole community. According to the prescriptions of the humanitarian organisation, other framework conditions concerning the water management had been established in the case study village. Here, the community as a whole was asked to cooperate and

[35] The Headman even declared that there are documents in a certain governmental office in Sesfontein that could prove his legal ownership over the terrain, where the water point is located. Nevertheless, through an interview with the official in charge of the bureau in mention, this claim could not be verified because the respective documents do not exist. In order to protect the anonymity of the Headman, the researcher did not refer to him in front of the governmental authority neither with his name nor with his title. Instead, the official has been asked if he knew of any ownership documents concerning the water point in the case study village.

to manage the water usage/access, a situation that seemed not to be expected by the Headman. However, this was not the solution for the existing water conflict. For, it was made up of other forms and facets. The rules once developed for the water points were being neither negotiated nor discussed or implemented and as already mentioned, the water committee (and the community) has not held even one meeting concerning water issues since its constitution. Moreover, the hand pump has been locked on an arbitrary basis and there are new important challenges to be confronted such as the maintenance of the water points' hand pumps. [36]

The Money Contributions Problem

According to three participants, the villagers' unwillingness to give the Headman money for the hand pump's maintenance is also a reason for him to lock the hand pump. The information gathered by the ethnographic census shows in fact that no household pays any kind of money contribution in relation with water issues. The Headman for his part – although he did not say, that he indeed locked the hand pump for this reason – affirmed indignantly that no one helped him with money for the hand pump's maintenance.

In relation to this, however, several reasons for the unwillingness to cooperate with the Headman could be determined through the interviews. The Head of HH#5, for example, made clear his reason for mistrusting the Headman was on the basis of an actual incident he had with him. He declared that the Headman sold a bag full of shoes that had been donated to the community by some South African students, who had voluntarily come to help in the campsite short time before the research activities.[37] The Headman was said to have given some of the shoes only to his family and then to have sold the rest in another village. Therefore, the Head of HH#5 justifies his unwillingness to give the Headman money for the hand pump, because he felt the Headman is also not cooperating with the community. To this, he added that every time the Headman asked for money, he only wanted it for his water point although the second one was completely unusable for more than a year. Within this context, to one of the Secretaries of the water committee (and at the same time, son of the Head of HH#5) it seemed suspicious to give the Headman money, because there are democratically elected treasurers (the wife of Head of HH#1 and the Head of HH#4) in charge of that task. The Head of HH#1 also sees a problem in that the Headman appointed his wife as the treasurer, because this allowed the people to think that he was able to take the money for private use. The Head of HH#4 said once, in turn, that as the Headman had already closed the hand pump for four days, he did not want to cooperate with him in any way. Furthermore, the Head of HH#2 believed that the Headman is even deceiving the community when he asks for money. He said that the Headman removed parts of the hand pump furtively and

[36] As this subsection has shown, the ownership of the water point is an unclear issue. Despite this, the author will still keep of referring to "W.P.2" in this paper as if it were the Headman's water point, so the reader can easily identify to which water point it's being alluded.

[37] The students left the village three days after the author began with the fieldwork on site. Altogether, the students stayed four weeks in the community campsite.

temporarily and then went to the households in order to ask for money although it is in fact not necessary.

However, the main reason for the Head of HH#2 not to cooperate contributing money was because of an arrangement made between the NGO settled in the village and the Headman. The Head of household stated that as the NGO was paying 350N$ monthly to the Headman for the water usage, he didn't see any necessity in giving the Headman additional money. He explained that the 350N$ are for the dromedaries and for the complete NGO's staff (from which the HH #2 is a member) settled in the in the community.[38] The same reason was also given by the Head of HH#6 and one member of HH#1, both workers of the NGO.[39]

The Headman himself confirmed this arrangement, but he added that there were some problems. According to him, the NGO was not paying 350N$[40], but rather 300N$ and this was only for the dromedaries and the staff, not for the families and their cattle, goats, sheep etc. that have settled in the village because of the NGO. To this, he added that he paid almost 1200N$ for repairing the hand pump, because he had to pay for the gasoline in order to reach the next big towns (almost five or six hours drive) by car where the reparation could be carried out. Nevertheless, there are some important inconsistencies with his declaration. Altogether, four participants stated that the hand pump was only once seriously damaged and that on that occasion the NGO arranged its reparation. They coincided in saying that workers from the NGO (but not the staff living in the community) dismantled the hand pump and transported it with a car to the next town for its repair. Furthermore, it was said that all implied costs were absorbed by the NGO. The Head of HH#6 added that the NGO had given the Headman money every time problems with the hand pump arose and that if the hand pump was unusable for a while, he was given gasoline to operate the machine pump (he normally used for pumping water into the camp-site) in the meantime.

The Role of the Tourist's Camp-site in the Water Conflict

According to the wife of HH#5, the Headman locked the hand pump because of damages caused by the villager's cattle in his campsite. He, in turn, never said that he had locked the hand pump for this reason, but during some interviews, he expressed that he is indeed very upset about the damages. According to him, unsupervised cattle had come into his campsite a repeated number of times destroying the fence around it and some objects in it such as the shower, the toilet and a small roof offering shadow. He added that if he were the government, he would have already displaced all households from the village, because as of yet he had invested 3000N$ only for repairing the damages their animals had caused.

[38] The dromedaries are used to track and monitor the wild animals the NGO is said to protect.

[39] It is important to mention that the Head of HH#6 believes that the Headman does not want to repair or let other villagers construct another water point, because otherwise he would lose the monopoly over the described agreement with the NGO.

[40] N$ = Namibian Dollar, 100N§ are round about 15 US$

The woman explained that the cattle went into the campsite breaking the fence and damaging the objects, because they were looking for something fresh situated in the garden. This was said to happen often during the nights when the cattle came alone from the bush every time when they had not been collected previously during the afternoon. Nevertheless, she added that it was the Headman's fault that the animals had come into the campsite, because it was his responsibility to build a strong fence around it in order to prevent them from causing any damages. In relation to this, according to the Head of HH#4, all cattle from households HH#2, HH#4, HH#5 and HH#6 had come into the campsite. The Headman, in turn, declared that all households allowed their animals to come onto his property, partly because they had not given them water and so they went into the campsite looking for water. Within this context, it is important to mention that only the Head of HH#4 had given the Headman a goat in compensation for the damages caused to the campsite by his animals; other households, according to the Head of HH#4 himself, have as yet not provided the Headman with compensation.

However, additional information in relation with the campsite could provide insight into the reasons why the villagers had left the Headman alone with the reparation of his property. First of all, at the time of the campsite's construction, it was agreed upon within the framework of a meeting with the Headmen that the later would give a part of his profit to the community, because the campsite was in an open area according to the Head of HH#5. The wife of HH#1 declared, in turn, that the Headman himself had promised to help the children in the village with transport to school if his campsite produced extra earnings. Nevertheless, according to the two interviewees, the Headman has not kept the promise. The Headman said, however, that the campsite had never run well and that the garden did not produce enough vegetables and fruits. In addition, the Head of HH#2, declared that the NGO in the village was even supporting the Headman with the campsite. He explained that the tourists, who had come to take wildlife tours within the framework of the services of the organisation, stayed in the campsite for a couple of days. He complained that they were just doing him a favour and that he was not given anything in return.

Second, according to the wife of the Head of HH#4, she declared that she had resigned to the fact that the Headman had decided to arbitrarily lock the hand pump in order to pump water into the campsite. At this, the Headman was said to have told the villagers that when he was pumping water into the campsite they could not use the water point in the meantime. To this matter, the Headman declared during an interview that he used a machine pump for this purpose, but he did not mention explicitly that in doing so, he locked the hand pump. He just stated that the hand pump had not to be operated, because otherwise the machine pump would not pump water properly.[41] Hence, if the villagers do not receive any benefits from the campsite, to run it due to their access to water being denied, it may be difficult for them to develop a sense of belonging towards the camping place and thus to take care of it.

[41] The machine pump he was using was borrowed from another Headman.

The Role of the NGO

Apart from the previously mentioned agreement between the NGO and the Headman in relation with the water usage, there is another important aspect of the NGO's role in the water conflict.

According to the Head of HH#2 and his wife, the Headman closed the hand pump out of fear that the people working for the NGO and their livestock could finish the water, which he in turn needed for his campsite. To this, the Head of HH#2 added that the Headman locked the hand pump usually when the men were in the bush tracking animals on behalf of the NGO. Once, however, he was in the village when it happened and decided to break the lock. Following this, his action almost culminated into a fight with the Headman as the latter figured out that he was the one who opened the hand pump's lock.

Although the Headman did not admit to close the hand pump for the above-mentioned reason, he did several times express that he is upset with the newcomers of the NGO. He declared, for example, that he was having too many quarrels with those households (altogether three: HH#2, HH#6 and HH#7) and that he felt that there was a competition over his goods. He had tried to speak to a representative of the NGO in order to discuss the situation, because it was not in the arrangement that the NGO workers would come with their families and animals and settle permanently in the area. That these families were not very welcome could be perceived through a declaration of the Head of HH#6. He said that the Headman approached him (as the most important person on site representing the NGO) several times telling him that the households that came because of the NGO had to leave the village.

Private Issues

Locking the hand pump, because certain Heads of households do not compensate him for the caused damages to his campsite or, because he does not like the wife of the Head of HH#6 to come with her animals to his grazing area, are some examples of the Headman instrumentalizing the hand pump to solve private matters. However, these do not seem to be the only cases in which this has happened.

For example, the Headman is said to have locked the hand pump repeatedly, because of private issues between him, his wife and the Head of HH#6 with his wife (an adult daughter of the Head of HH#6). Nevertheless, none of the participants asked about this matter (Head of HH#6, his wife, and his daughter) wanted to explain the background, but they all assured me that the problems do not have to do with water issues.

However, another incident showed that the Headman was not only instrumentalizing the hand pump, but possibly also trying to violently demonstrate that he must be obeyed. Altogether three Heads of household mentioned that the Headman had beaten a young man once, because the later had brought his goats to the water point after the Headman had warned him not to do it. The 23-year-old man involved in the incident that occurred in 2005, related for his part what happened. According to him, before the incident, the Headman had called for a meeting in order to communicate to the community some information from the conservancy of Sesfontein. However, the young man told the Headman

that he would not participate in the reunion, because it was "too boring". In view of this, the Headman told him that if he would not go to the meeting, he should then not bring the goats to the water point. The young man in fact did not attend the reunion and the next day he brought the goats to the prohibited place. Consequently, the Headman beat him in the head.

Witchcraft

Within the framework of the water conflict in the case study village, witchcraft also has played an important role. As reported in southern Africa, the overwhelming explanation for witchcraft is jealousy (cf. Thomas 2007). Such is also the case in the research site. The Headman and his wife assured that one of their adult sons (22) had been bewitched, because someone was jealous that they owned the water point and the campsite. The son himself described that he felt as though two opposing magnets were inside of him and that he was therefore not sleeping very well. His parents added, in turn, that he was shouting and running through the night without a cause and speaking nonsense. At this, they said they believed to know which person in the village was producing the witchcraft affecting their son, but did not want to mention her/his name because they are not exactly sure of their suspicion. In other parts of Africa, persons pointed out to be witches run the risk of being victims of social isolation or even violence (cf. Ashforth 1998). According to my interpreter, identified witches in the region can share this destiny as well. Nevertheless, if the accusing persons point to the wrong person, they are the ones who can be socially isolated and they also run the risk of increasing the effects of the witchcraft. For this reason, the Headman and his wife were very careful in mentioning names.

An attempt to explore this topic more deeply was very difficult. None of the other villagers asked in this matter, admitted having any kind of knowledge about witchcraft or sorcery in the village and did not want to talk about this subject in general. Nevertheless, the researcher's field assistant advised that they surely know something, but that they refused to tell anything, because witchcraft as such is a very delicate issue.

However, analysing this aspect within the framework of the water conflict, it is legitimate to ask what advantage the Headman could have in speaking of his son being bewitched. At first sight, if the Headman had in fact pointed to a certain person being the culprit of his son's illness, it is arguable to what extend would other villagers agree with his accusation considering his role in the conflict and that he is not acknowledged as the official Headman. Nevertheless, if he approaches a "witch-doctor", the later has the legitimation to name the person responsible, to make hints as to the perpetrator's identity, or to verify the already held suspicions of the family. Here the question would be whether the "witch-doctor" has a high enough reputation so that his declarations can be followed up by the rest of the community. If he does, maybe the Headman achieves an advantage in the conflict indeed.[42]

[42] At the time of the research activities, they approached a "witch-doctor" in order to find out who the perpetrator was. Nevertheless, the traditional healer could not tell them who, as he had to come to the village from afar in order to carry out the procedure in the village (they approached him in the village from which the Headman originates).

The External Actors

An important governmental official settled in Sesfontein has been approached three times by members of the community in order to denounce the Headman's arbitrary actions. The humanitarian organisation (which donated the hand pumps) was approached for this same reason as well, but only one time.[43] According to the Head of HH#6, however, the official could only warn the Headman two of the three times this warning occurred in another village between Sesfontein and the residence of the villagers (a reason why not all the Heads of household could be present). The reason for this was because the case study village is quite far away from Sesfontein (approximately 62 km) and the official did not have enough petrol to reach the community according to the Head of HH#6. At the two meetings, the official is said to have warned the Headman that locking the hand pump was an illegal action.[44] Additionally, the members of the humanitarian organisation were said to have come to the village and to have reminded the Headman that the hand pump was donated to the whole community and therefore should not be only for his personal use. At this, so the Head of HH#6 added, the Headman was told that if he locked the hand pump again, the hand pump would have to be removed. In spite of these interventions of the governmental official and the humanitarian organisation in the conflict, the Headman is said to have locked the hand pump again, but only two or three times (so the Head of HH#6). Other external actors such as members of other water committees in other villages have yet not been approached by the community members of village in order to intervene in the conflict. The reason for this is that they simply do not know them. This is a result of the individual network analysis carried out with three committee members in the research site.[45]

For his part, the Headman has social connections outside the village with whom he is able to obtain help in steering the water conflict in the community. According to the Head of HH#6, the Headman managed to bring a more influencing Headman friend of his into the village in order to solve the problem with the contributions. This Headman is said to have told the community that every household must pay 100N$ monthly in order to maintain the hand pump. Nevertheless, so the Head of HH#6 continued, the villagers objected by saying that the proposed amount of money is too high for a contribution. To this, the Headman in mention responded saying that if they do not like the rules, they must move out of the community. Nonetheless, no household has left the community.

However, the Headman has also tried to gain an advantage in the water conflict through the legal system. After having concluded the research activities in the case study village, an interview with a governmental official in Sesfontein revealed that the Headman was trying to obtain the legal ownership over the terrain where the campsite and the water point are located (which, in turn, demonstrates that he does not have any documents of ownership over them yet, although he had previously sug-

[43] The councillor was approached two times by the Head of HH#6 and one time by the Head of HH#5, who contacted the humanitarian organisation as well.

[44] This is implied in the Communal Land Reform Act No. 5 from 2002.

[45] The participants were one adult son of Head of HH#5 (Secretary), one adult daughter of Head of HH#6 (Organiser) and the wife of Head of HH#1 (Treasurer).

gested such to the researcher). According to the official, the different opinions of the traditional authorities have prevented – at least for the moment – that the Headman obtained the ownership over them. Some Headmen from the same village from which the Headman originates, such as the official, are in support of him with his intentions, but another party of mostly Damara authorities are against the proposal, because the campsite and the water point are in a communal area and so the legal property of the whole community. Later, during the interview, it could be understood why the Headman wanted to be the legal owner of the terrain: the official explained that according to the Namibian law, no person might be prevented from drawing water if a water source is located in commonage.[46] Nevertheless, if the Headman becomes the only owner of the terrain involving the water point, then, it is possible the he would be able to prevent his neighbours from drawing water from it legally. This, in turn, would imply that the villagers' means of exerting pressure over the Headman could be reduced or may even be completely neutralised.

7. Discussion

7.1. The Conflict as a Bargaining Process

As already outlined in section 2, the approach of Knight can best explain the situation found in the research site. As noted there, the author conceptualizes institutional development and change as a by-product of a bargaining game over substantive social outcomes determined by the parties' relative abilities (i.e. bargaining powers) to establish rules (constraining the actions of others), that structure outcomes to those equilibria most favourable to them (Knight 1992: 126ff).

The conflict in the case study village can be interpreted as a bargaining game *in proces*s between several actors with differing needs/interests and bargaining powers over distributional benefits regarding the access to water. This *process* was not specifically characterized by a situation of verbal offers and counteroffers within the framework of a water committee or community meeting, but shaped through principally by a range of diverse practices out of these participative forums.[47] The interpretation of the conflict as a bargaining game *in process* is based on the fact that the circumstances were shaped by a sequence of actions and counteractions without a more or less clear 'winner' or stable (equilibrium) outcome, that is, a situation, in which one or the other actor had to accept the actions of the antagonist because he couldn't do better than to do so (ibid.). At first glance, one could say that the conflict as such is indeed structuring or regulating the practices of access and usage of water in the community,

[46] See Republic of Namibia (2002).

[47] Here, it has to be pointed out that the physical participation at community meetings or committee reunions does not necessarily imply that 'real' participation is guaranteed. Differences in gender, age or social position can lead to the fact that their opinions or interests are not listened to. Furthermore, as Cleaver (2001) explains, decision-making is not necessarily located only within the frameworks of a committee anyway. Often, consultations take place within families regarding matters of livestock welfare, grazing, etc. since they use to herd livestock as well. In the case study village, this could also be the case although there is no functioning water committee: the children often bring the animals to the water point or natural water fountains principally in consultation with their father.

but except for the time during which the hand pump remains locked (as a rule one to three days), the villagers do not radically change their water fetching or animal watering practices in its context. In other words, the conflict as such is not producing a set of rules i.e. institutions structuring or regulating the access and usage of water. While the hand pump remains locked, the villagers draw water from the first water point (although the water is not very clean) and they also have the possibility of using the natural water fountains for their animals. During the dry season, these households come more regularly to the Headman's water point, although frictions with him are pre-programmed. The Headman tries constantly through several strategies to constrain others in such a way as to secure his preferred alternative, which is to impede them from using his water point as much as possible, above all from watering their animals in times of drought, or even to bring them to leave the community.[48] However, his pretentions are constantly blocked by the villagers, who continually find ways to counteract his attempts to deny them access to the water, (although they are legitimated to use the water point since the hand pump over it was donated to the community as a whole). The factions within the conflict have then relatively the equal bargaining power (based on several bargaining resources) in the struggle of defending their respective needs/interests regarding the usage of the water point.

The achievement of collective goals, a central premise from Ostrom (1990) as a motivation for collective action is in contrast not a pronounced characteristic of the described situation in the village. Primarily because the Headman does not have the disposition of compromising with others, whereby herewith he dismisses the possibility that his water needs could also be covered if he entered into a less conflictual relationship with the other households or negotiated with them in order to initiate formal institutions to regulate the water points' usage.

The Actors' Bargaining Strategies and Resources

In order to push his interests through, the Headman uses concrete strategies such as locking the hand pump or threatening to lock it. However, he also has other bargaining resources. The Headman draws on mechanisms provided by the Namibian legal system in order to steer the conflict, like pursuing to obtain the legal ownership over the campsite and the water point. With this, he seems to be pursuing the entitlement to obtain compensation in cases of damage to the campsite and also prevent his neighbours legally from drawing water. Here it becomes clear that, as Lund stated, "National laws and government institutions constitute an environment for local politics and important local players within it" (Lund 2007: 21).

Additionally, the Headman has used resources within the customary political fabric in order to gain an advantage in the dispute: the contact to traditional authorities of other villages. If we remember, he

[48] Maybe except for HH#1, which has few animals and with which he used to share the water point before. Possibly, the Headman is further tolerating HH#6, the household representing the NGO, which, in turn, is paying him for the water. The rest of households that came into the village, because of their work at the NGO were from the beginning not welcomed by the Headman since – assuming that the Headman told the truth – it had not been agreed upon that they would come and settle in the village with their animals and use his water point.

brought another more influential Headman he knew from the village from which he originates, into the conflict in order to tell the villagers to either financially contribute on a monthly basis for the hand pump's maintenance or to move out of the community.

Another important practice or strategy implemented by the Headman is the use of discourses. The Headman's assertions of being the owner of the water point and the legitimate ruler of the community can be interpreted as a way to legitimate his actions in the conflict (locking the hand pump without consulting the community, telling villagers to leave the village, among others) and so to assure his access to the water. Even the discourse of witchcraft can also be seen as a bargaining resource based on cultural beliefs about supernatural powers. Although the Headman takes a risk in accusing persons of practising witchcraft against his household (because in the case of a wrong accusation, his household could among others become a victim of social isolation and accused of defamation), these general accusations can be used as a potential tool of attack. By announcing it publicly, he puts the community under general suspicion, which can be understood as a mechanism of intimidation and as an attempt to reinforce his role as a victim in the conflict.

However, as already mentioned, some villagers also have resources to counteract the Headman's strategies. They also use the state institutions to influence the conflict: the councillor of Sesfontein has been approached several times so he could warn the Headman about the unlawfulness of his actions. In contrast to the Headman, however, they seem not to have personally approached any traditional authorities to have an influence in the conflict, not even in order to inform them about his actions. They have rather directly approached the governmental official in mention.[49]

In addition to this, they, as well as the Headman, use the recourse of discourses to undermine their counterparts. They do not recognize the Headman as their legitimate ruler and above all the Head of HH#2 even affirmed that the Headman was not the only one who dug the water hole. In sustaining the prior, the Headman's actions thus become unjustified and arbitrary while at the same time the villagers so create by this means a discursive argument that empowers them to still use the water point since the person denying them the access to water does not have any formal authority to do so. What concrete strategies the villagers utilize in order to counteract the Headman's accusations of being a victim of witchcraft remained unknown due to the difficult study accessibility of this phenomenon. Probably more time in the field would have contributed to gaining the deeper trust of the villagers in order to find out more about this topic in general.

Bargaining More than Needs and Interests

[49] The reason why they have as of yet not contacted the Chiefs, who are supposedly the legitimate rulers of the community, remains unclear. Possibly, the villagers trust the governmental official or rather the judiciary more than their traditional authorities. The thought underlying this supposition is that some cases of corruption and impartiality among certain traditional authorities have been recorded through informal conversations with persons from the case study village and from Sesfontein.

One important aspect to be mentioned is that besides the differing needs or interests regarding the access and use of water, the conflict involved a more fundamental, but at the same time less tangible issue. Through participant observation, it could be recorded that sharing food was a common practice not only in the research site, but also in other visited communities. After having cooked, for example, it was as a matter of course that visitors (principally neighbours) were allowed to take maize porridge out of the pot from which the household members were eating. It happened similarly even after having slaughtered a goat or sheep: visitors were offered a piece of meat by the Head of household or his wife and in some cases, the meat was even brought personally to a neighboured homestead despite its high value.[50] Concerning water, it appears to occur in a similar manner. In the case study village – as well as in other visited communities – it was self-evident to offer visitors (also mostly co-villagers) water to drink or they just served themselves a cup of it from a container often without asking for it previously. Concerning the natural water fountains in the research setting, for example, it is taken for granted that the water collected from them is for all, regardless of who found the fountains first. In another visited community it was recorded that its habitants have scruples denying persons – walking on their way with their animals – from drawing water from their water point, even if this meant "loosing" water. Although the villagers pay water fees for pumping water, they said that they could not deny passing-by persons and their animals from drinking even if they are not able to pay for it, because it is simply not the 'right thing' to do. Asking the field assistant if sharing water in the region was something evident, expected and frowned upon when denied, such as was in the case of the food, he answered affirmatively.[51] Sharing water, just as sharing food, is a social embedded institution i.e. an institution based on culture and daily practice (Cleaver 2002: 13). In the conflict of the case study village, the validity of this institutional practice is at play or rather raised into question.

7.2. The Fear of Water Scarcity

Notably, the Headman's conduct (in comparison to the rest of the villagers) is the most in discordance with the behavioural pattern implied in the social embedded institution described above. Among the reasons for him locking the hand pump (or rather to act against the institution), explicitly displayed in the description of the conflict, there is one fundamental factor that may have been overlooked. There are indications that the environmental uncertainty (Mehta et. al. 1999) is an implicit, but important impetus of his actions or rather his general attitude towards his neighbours.

If we remember, the Head of HH#2 and his wife declared that the Headman locks the hand pump out of fear that the people working for the NGO and their livestock could finish the water, which he in turn needs for his campsite. They are the only two villagers that mentioned this reason in connection

[50] As noted above, the animals have a relatively high value for their owners. For this reason, the animals are not regularly used for the household consumption. However, if an animal is slaughtered for this cause indeed, it is a goat or a sheep. The cows are slaughtered principally at important events, like funerals or marriages.

[51] My interpreter lives with his mother, brothers and sisters in Sesfontein and knows the region very well due to his regular work as a tourist guide.

with the Headman's action of locking the hand pump. The Headman himself never explicitly expressed that he locks the hand pump for this reason. Although it was implicitly stated that he fears water scarcity could occur if other households and their animals were to use his water point permanently. If we recall the first interview with him (the first time the research site was visited), he only expressed his general preoccupation that there were too many people settled in the area using his water point considering that the water beneath it might be scarce.

The fact, however, that the frictions with the Headman regarding water usage at his water point increased during the dry season – when less water could be drawn at his water point – is an indication that the variability and unpredictability of the water availability at his water point shapes to a great extent his behaviour towards his co-villagers and so therefore plays a significant role in the situation in the village regarding the water access and use.

Linked to this issue is the economic heterogeneity. In the literature, it is commonly argued that this factor above all makes cooperative arrangements around the management of natural resources difficult (cf. Adhikari/ Lovett 2006). The situation in the case study village seems to reinforce this argument at least to a certain extent. If we recall, at the beginning the Headman was only sharing the water point with HH#1. This is a household with which he holds an affine relationship and from which he apparently has indeed received help in the past to dig the water hole, but it is also a household characterized as being "poor" in terms of owning animals, which implies low water consumption. In this situation, therefore, he didn't have to worry that water at his water point could be extracted in great quantities, that is, that his access to water could be seriously threatened. This can be reinforced through the fact that there are no signs that disputes have taken place between the Headman and the household regarding water. Afterwards, however, if we consider the course of the conflict, the problems concerning the water point began and intensified when more and more households settled in the community and became entitled to use the Headman's water point (as the pump over it was donated by the humanitarian organisation to the whole community). These (few) newly settled households are not as "poor" as HH#1 (and as the Headman) and the majority of them have far more animals than he does, above all cattle, which implicates a potential increment of water consumption in the community. Surely, it cannot be completely ruled out that the conflict would have developed in a less problematic manner, had these newly settled households been as "poor" as the Headman. Nevertheless, it can also be supposed that the Headman would not have been that worried about the overuse of his water point, had the newly settled households been in possession of significantly less animals. Hence, the uncertainty of water availability at his water point together with the economic differences between the households, are (the later again, maybe only to a certain extent) inducing the Headman not to enter a cooperative relationship with the majority of his neighbours.

The Headman's Costs of Locking the Hand Pump

It is important to consider that the Headman persists in maintaining a non-cooperative attitude towards his neighbours not only because of the fear of water scarcity being too high, or because he always finds a way to impose or to defend his interests (i.e. through his bargaining strategies and resources), but also because the costs of locking the hand pump are relatively low for him and his household despite the conflict. According to Knight, the "breakdown values" are the actor's costs of 'non coordination on an equilibrium outcome' (Knight 1992: 129ff). If the "breakdown value" of an individual is high, then he has less to lose in case of failing to cooperate or to achieve an agreement with the other interested parties. This seems to be the case in this situation considering social relations.[52] Although it is true that – according to the results of the Group Network Analysis - the Headman is only visited by two of his neighbours (the only two neutral actors in the conflict) for functional reasons, he is still not fully isolated or dependent from other villagers in other spheres of social life. He can count on help for castrating a young bull (due to affine relationships to other household) and is able to dispense with the sharing structures in the community despite the conflict. In the first case, affine relationships to another household (HH#5) enables him to get help to conduct the castration procedure. In this matter another head of household (HH#4) appears to also offer him his help for this farming activity, possibly to demonstrate cooperation and so to ascertain the access to water for his animals during the dry season.[53] Regarding the independence of transport facilities, the Headman maintains a freedom of action in light of the fact that other households (inclusive the ones with which he holds an affine relationship) seem not to be willing (independent of the reason) to give his household sugar (and probably other food provisions), because they have the means to go to the next shop with their own vehicle if they are in need of something. This means that if we conceptualize dependence relationships in terms of power (Emerson 1962) the Headman is rather 'powerful' due to his independence from others.[54] Furthermore, other villagers (mostly the wives of other heads of household) are rather dependant on the Headman's will to take them along with his car, since he, in contrast to the other car owners, does not leave the community for several days or weeks at a time. To this, it is important to mention, that the visitors at his campsite (sporadically) bring him material benefits that his neighbours possibly cannot offer him. The afore mentioned South African students and other tourists that stayed in the campsite before and during the research activities gave him food supplies, money donations, medicine or offered to bring his family members to Sesfontein.[55] This makes him a bit more independent from the material profits of social relationships in the village.

[52] From a psychological perspective, in contrast, it is indeed possible that locking the hand pump can constitute a cost for the Headman. Through his actions, he is not exactly gaining the friendship and sympathy of his neighbours nor cultivating a good reputation. Furthermore, the councillor of Sesfontein has become aware of the arbitrary manner of his actions. Indeed, all of these issues could be a matter of concern for the Headman.

[53] Naturally, herewith the possibility that the respective Head of household helped the Headman without having any further intentions other than being kind, cannot be completely ruled out.

[54] Following Emerson (1962), the more dependent an individual is on a social relationship, the less power that individual actually possesses.

[55] This information is based on conversations with the campsite visitors themselves.

Nevertheless, an important additional argument for why the costs of locking the hand pump have remained relatively low for the Headman is that the other villagers have the tendency of avoiding an escalation of the situation. For example, the Heads of other households could have collectively demanded that the Headman must leave the community or could have denied him the use of the water point, which he has assured to be his own. However, the Heads of households did not voice such demands. Naturally, it cannot be denied that the existence of the natural water fountains surely helps to avoid that all households depend on one water point and that therefore the frictions between them are less frequent. Nevertheless, the rather defensive attitude of the villagers (since they primarily respond to the actions of the Headman) can be taken as a strong sign that norms of conflict avoidance are widespread in the community and that therefore the potential of finding a solution for the conflict is definitely existent.

Locking the Hand Pump: an Exercise of Power?

If we remember, the Headman seems not only to lock the hand pump because he is worried about the water beneath his water point, but also because he instrumentalizes the hand pump in order to solve disputes besides water issues. He locks the hand pump in order to punish the villagers, whose cattle caused damages in his campsite and also to settle private problems with members of other households. At first glance, however, one could affirm that with these actions the Headman is exercising his power. Nevertheless, on closer examination of the dependence relationships in terms of power (Emerson 1962) but from the villagers' perspective, it can be determined that this impression is rather relative and that the Headman, at most, is attempting to exercise power. At first sight, the majority of the households in the community appear to be dependent on the water point, which the Headman assured to be his, thus they are dependent on him also. Nevertheless, they have the alternative to use the natural water fountains and to draw water from the first water point as a last resort if the Headman locks the hand pump independent of the reason for him doing so.[56] However, the Headman – who was not able to go to the natural water fountains due to the distance – was reliant upon their willingness to pay the money contributions in order to maintain the water pump (this, assuming that the money the NGO was paying him monthly was really not enough for this purpose).[57] During the dry season the situation is similar. When the water at the natural fountains becomes scarce, the households that use the natural water fountains are forced to use the Headman's water point in the village. At this point, if the Headman locks the hand pump, then the households in mention are more affected. Nonetheless, if the Headman locks the hand pump, the villagers draw on strategies such as the ones described above in order to counteract him and so the bargaining game continues. In the light of these circumstances,

[56] HH#1 lives far away from the natural water fountains, but has three tanks with a 200 liter capacity to store water, which is also usually kept relatively full. So, if the Headman locks the hand pump, the household members and animals can rely on these water reserves for a couple of days.

[57] The Headman could not count on the help from the only son living permanently in the village to take the animals far away, since he refuses to help him with the farming activities. He helps him only with the administration of the campsite, that is, to welcome the tourists and to arrange the overnight stay with them.

then, it turns out to be quite relative, which actor exercises power over whom. The opposing parties were, depending on the situation, dependent or independent from each other and in case of dependency implementing bargaining strategies to counterbalance the state of affairs.

Interdependency of Water and Land Use

Although the Headman justifies locking the hand pump in the context of the overgrazing problems in the immediate surroundings of the community as a necessary evil to the benefit of the community in general (because so, the villagers would be forced to bring their animals to other areas to graze), there are reasons for the assumption that herewith he follows principally his own interests. Due to the overgrazing problems, he has to cover longer distances between the water point and suitable grazing areas. In contrast, the majority of the other villagers are used to bring their animals to the natural water fountains to graze and are also used to support one another in this task. However, the Headman holds an interest in his animals being able to graze preferably close to the water point as he cannot count on support from others to bring his livestock much further away and therefore he is dependent only on his own water fountain. If we assume for a moment, that all households were dependent only on the Headman's water point and that the natural water fountains were non-existent, the circumstances in the case study village regarding the overgrazing problems may be surely more tensioned. In this fictive situation, all households would be forced to go further away from the community to graze their animals and to come back to the village to water them. (Not to mention that, under these conditions, the villagers would be quite affected by the Headman's actions). In communities in which this situation is habitual, is to say that there is only one water point in the village, then the interdependency between land and water usage would be in such a case even more obvious. As showed for the case study village, this interconnection was heating up the conflict although not all villagers were being seriously affected by the overgrazing problems near the water point. In communities, in which the only water point in the village is the water fountain,, it is to be expected that the bargaining game among users can be even more tense and the role of power correspondingly, even more prominent. All in all, at this place it can be stressed that failing institutions regarding the water management can have a negative influence on the use of land and vice versa. In order to avoid tensions or even conflicts, then, the communities have to face the challenge to develop 'bifunctional institutions' i.e. institutions regulating the land and water use as well.

7.3. The Case Study Village: A Case of Institutional Failure?

In the literature, the term institutional failure is commonly linked to the denotation of those situations in which actors using a common pool resource have failed in crafting collectively formal institutions for a sustainable management of that resource i.e. to avoid resource damage or overexploitation (Ostrom 1990; Acheson 2006). In the described case study, the villagers are not only not implementing the rules for the water points, they are also not renegotiating them and so the conflict as such, as al-

ready mentioned, is not decisively structuring the practices of water fetching and animal watering among the villagers. However, in the case of the Headman's water point, it is difficult to affirm if the water beneath it is truly overused by the villagers due to the lack of institutional arrangements. All indications point to the water scarcity at his water point (in terms of less water coming out from the hand pump and not that water could not be pumped up at all) being seasonally dependent. However, it cannot be ruled out that the water captured in the underground during the rainy season, would last through the dry period without any kind of bottlenecks, if the water point was used even less intensively (since the majority of the households are already mainly using the natural water fountains for their animals unless during the dry season). Being so, then, the problem seems to lie indeed in the lack of clear boundaries regarding the settlement in the village and in the lack of arrangements concerning who can use how much of the water resources.

Apart from this, it cannot be affirmed with certainty that the Headman is impeding the drying up of his water point by locking the hand pump. The number of times he has already locked the hand pump could not be established. The number of days the pump remained locked, however, could be established. This was between one and four days. The de facto impact of these actions on the resource in the short and the long term is unknown. In case of being effectively so, that is to say that the Headman was impeding the drying up of the water point by his actions of locking the pump, then, the case study village, could be therefore an example in which collective action problems regarding the sustainable management of natural resources at the local level were being solved through an authoritarian way.

A similar conclusion can be formulated concerning the natural water fountains. It cannot be assured with accuracy whether these fountains would supply more water during the dry seasons if the users were to develop institutional conventions leading to a less intensive use of them in general, for example, through reducing the number of users or the use practices. A fact is, however, that at the end, no household in the community really experiences any kind of serious adversities due to water shortages (no villager declared that any animals have died of thirst, for example). Nevertheless, if more households were to settle in the community, this figure would probably change since the strategy of using the Headman's water point as an alternative for the water scarcity at the natural fountains would lead to the drain of the water point. Then, enough water would not be available, neither at the water fountains nor at the Headman's water point, thus creating an immensely challenging situation for the community.

8. Conclusion

The main focus of the project underlying this paper was to gain a detailed impression from an anthropological perspective of how the communities in Namibia were dealing with the development of institutional arrangements for the water access and usage in the context of relatively recent legal developments promoting the common based management of this resource.

Based on the fieldwork findings, which denoted a situation of intricate conflict in the research setting, the theoretical objective of this paper was to analyse the role of power in the development of institutions by means of a theoretical construct that has seldom, or not at all, been applied to examine communal water resource management affairs: Knight´s bargaining theory of institutional development. Critics of widespread concepts of communal resource management have not attempted yet to examine power by means of a theoretical framework, although they pointed out its outstanding role in the development of institutions. For the case study in this paper, Knight's approach proved to be a useful theoretical tool of analysis, as he conceptualizes the development of institutions as a by-product of the process of seeking distributional advantage over substantive benefits by means of bargaining power (which was the situation in the research setting) and not as the product of the efforts to obtain collective benefits (as commonly suggested for the development of institutions at the local level resource management).

Concretely, by reference to Knight´s approach, it could be determined that the situation in the case study village reflects a bargaining game *in process* as the interest parties are counteracting repeatedly (excepting maybe the neutral actors) through different bargaining resources and strategies the attempt of the opponent to structure the access to the water point. The specific tactics which the actors in the village implement to impose or defend their interests or needs regarding the access to water are multilayered. Besides concrete actions like locking the hand pump (or breaking the lock in return), the actors draw on mechanisms provided by the Namibian legal system and by the customary political fabric. Furthermore they make recourse to different kinds of discourses, some of them related to cultural beliefs, like witchcraft.

From the perspective of the most conspicuous actor in the conflict, i.e. the Headman, who was acting substantially in discordance with the widespread social embedded institution (Cleaver 2002) of sharing water in the region and in the settlement, it has been attempted in the scope of this work to analyse the factors motivating his attitude towards his co-villagers. Following this, it could be identified that the fear of water scarcity appeared to be an important impetus for his behaviour. This fear, in turn, appeared to be shaped by the environmental uncertainty (Mehta et. al. 1999) and by the fact that new settled households were having significantly more animals than he had. At this stage, it has been postulated (with reservation, however) that the economic heterogeneity – a factor commonly seen as the impediment for cooperative arrangements (cf. Adhikari/ Lovett 2006) – was restraining the Headman's cooperative behaviour, since his interests or needs regarding water were being potentially threatened by the "rich" newcomers.

The reason why the Headman can persist in maintaining a non-cooperative relationship with the majority of his neighbours was clarified by analysing his "breakdown values" i.e. the costs of failing to cooperate or to achieve an agreement with the other interested parties (Knight 1992: 129ff). In the context of the conflict, the Headman is not bearing high costs for his attitude, since he is not being fully isolated or dependent on other villagers. This independency from the relationship of others con-

fers the Headman power (Emerson 1962). However, an important aspect has to be added in relation to this matter, namely, that the villagers are having a rather defensive attitude towards the Headman's actions. This is contributing significantly not only to the fact that the consequences for the Headman are remaining low, but also to the fact that the situation in general has not escalated more. Against this background, the villagers´ attitude can be taken as a strong sign that norms of conflict avoidance are widespread in the community and that therefore the potential of finding a solution for the conflict is definitely existent.

Subsequently, it has been analysed from the villagers´ perspective if the Headman was exercising power on them every time he was locking the hand pump. The result of this examination was quite relative. The opposing parties were, depending on the situation, dependent on or independent from each other and in case of dependency implementing bargaining strategies to counterbalance the state of affairs.

Towards the end of the analysis two issues have been problematized: the challenge of making institutional arrangements involving both, water and land use, and the question of whether the community was damaging the water resources due to the lack of formal institutions. In relation to the first aspect, it has been stressed that the communities (probably not only in the research setting) have to face the challenge to develop 'bifunctional institutions' i.e. institutions that regulate the land and the water use likewise in order to avoid tensions or even conflicts, since they influence each other directly. Regarding the second issue, it could not be established with accuracy if the case study village was a case of institutional failure, that is to say, a case in which the water resources were getting overexploited due to the lack of institutional arrangements among users. Concerning the water point in the village for example, there were strong indications that the water scarcity experienced there, was seasonally dependent. The question if this water scarcity could have been better managed by using the water point less intensively in general through user boundaries and usage regulations remained unclear. Regarding the natural water fountains the question also remained open whether they supplied enough water during the dry season, if the villagers would have had developed usage regulations for the use of water.

The case study presented in this paper showed that for future empirical research in Namibia, it should be taken into account that the social reality of the communities can be more complex than mainstream communal natural resource management theory assumes. Besides power, environmental uncertainties and the economic heterogeneity can be important factors influencing the development of cooperation among users. The case study village, however, should obviously not be taken as a general reflection of the general situation in Namibia concerning how the communities are dealing with the regulation of the water access and usage in the context of the recent water reform. To give a more sustained judg-

ment on this matter, further detailed studies are necessary.[58] Nevertheless, one important insight provided by the selected village is, that ideas of CBNRM, like constituting a committee in which users can participate in developing rules, can encounter settings with a history of tensions, in which such measures may not easily gain a foothold. Possibly a periodical monitoring of the communities would help to avoid situations or problems like the ones registered in the researched village, where the water committee was not functioning and rules were not being negotiated. Nonetheless, in this case the water reform would lose its main purpose: to give the communities the autonomy to regulate the water resources they use. Probably, the communities just need time to get used to this situation of autonomy and cases like the researched village are simply in a process of learning.

Finally, although the presented case study may not be generalized for other communities elsewhere, this paper shows specifically that power – in terms of bargaining power, i.e. bargaining resources and strategies , can be an important factor shaping the development of institutions at the local level for the management of water resources. Therefore, from a theoretical perspective, it can be concluded that the case study village is an important evidence that the development of institutions at the local level can be the by-product of a strategic conflict and not the result of the users' attempts to achieve collective goals, as frequently assumed by the mainstream communal natural resource management theory.

[58] No to mention, moreover, that in the research setting it was not the government which gave the villagers management training and supplied them with a pump, but an independent humanitarian organization.

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