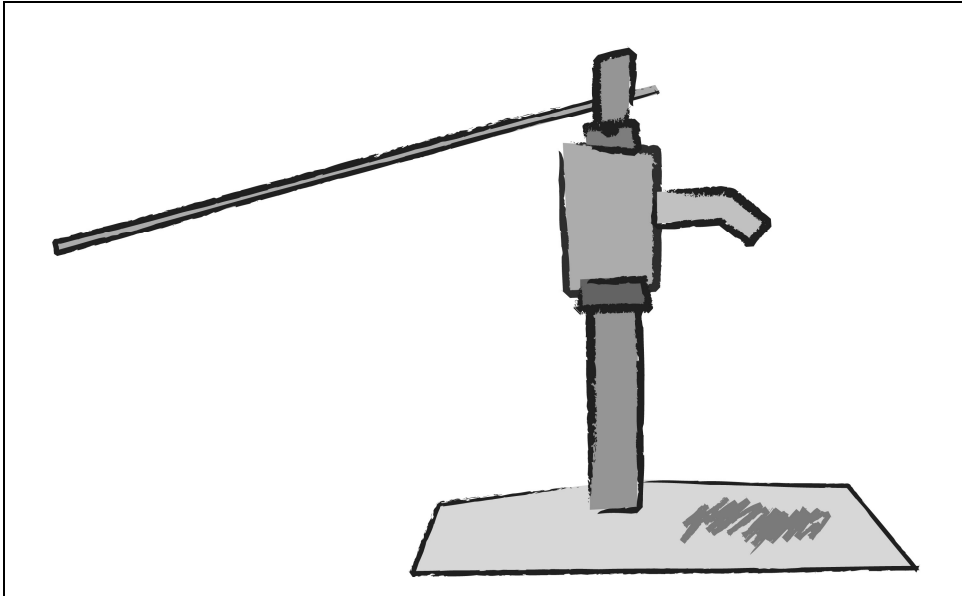


Diego Augusto Menestrey Schwieger



Institutions and Conflict

**An Ethnographic Study of Communal Water Management
in North-West Namibia**

KÖLNER ETHNOLOGISCHE BEITRÄGE

Herausgegeben von Michael J. Casimir

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Institut für Ethnologie
Universität zu Köln
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Editor's preface

This work supervised by Prof. Dr. Michael Schnegg, addresses the question how a community in rural Namibia copes with the development of new institutions for the administration and distribution of water. The analysis of this topic takes place against the background that in Namibia the responsibility for the water management and supply in rural communities has been handed over by the state to the local users in the last years. In the course of this process hundreds of communities must develop new institutions in order to pump up and to distribute the groundwater.

The present work is based on several months of fieldwork in the region and was promoted in cooperation between the University of Hamburg, the United Nations University in Bonn and the Institute of Social and Cultural Anthropology of the University of Cologne.

By means of thick ethnographic descriptions the work shows that Knight's theoretic model is most suitable for understanding the process of institutional change. Here, institutions are the result of the conflict over the access and control of resources (the water supply) and less the result from collective action towards common welfare. Furthermore it is shown that the emergence of institutions concerning the water management can only be understood adequately if its connection with other resources (particularly land) and its embeddedness in further social and political fields are considered. In the work the author succeeds in analyzing a complex process of social change and in gaining new insights into how institutions emerge and into when conflict arises.

Michael J. Casimir

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List of abbreviations

A.m.	Ante meridiem
CBNRM	Community-Based Natural Resource Management
Cf.	Confer
CPR	Common Pool Resources
DP	Disability Pension
Dr.	Doctor
DRWS	Directorate of Rural Water Supply
ECM	Extended Case Method
Et. al.	Et aliae
Etc.	Etcetera
HH ID	Household Identification
HH	Household
I.e.	Id est
Ibid.	Ibidem
Km	Kilometre
Lbs.	Pound
LWA	Local Water Usage Association
M.A.	Master of Arts
M ²	Square metre
N\$	Namibian Dollar
Nat. W.P.	Natural Water Point
NGO	Nongovernmental Organization
No.	Number
OAP	Old Age Pension
P.m.	Post meridiem
Prof.	Professor
Rel.	Related/ Relation
School. Ch.	School Children
UNU-EHS	United Nations University – Institute for Environment and Human Security
W.C.	Water Committee
W.P.	Water Point

W.P.1	Water Point One
W.P.2	Water Point Two
WPA	Water Point User Association
Sec.	Section
Mm	Millimetre
Approx.	Approximately
Vs.	Versus

1 Introduction

1.1 Backgrounds of the study

The backgrounds of this M.A. degree thesis in Social Anthropology are linked to a research project initially 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 MICROCON program¹.

For the research purposes underlying this thesis, Namibia was of special interest principally due to its climate and 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).² 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

¹ For more detailed information about MICROCON see <http://www.microconflict.eu/>

² 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.

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 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, then, the communities have received the responsibility and a framework of autonomy for managing collectively a natural resource that especially in Namibia might not be exactly abundant. This situation offers the chance to inquire from an anthropological perspective how mechanisms or institutional arrangements are being developed, negotiated and maintained by the communities in order to manage the water resources they normally use.

1.2 Theoretical framework 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 mayor expression in Ostrom's

Governing the Commons: the Evolution of Institutions for Collective Action (1990).³ An important message of Ostrom's 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):⁴

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 or 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.

³ 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 constraints that shape human interaction" (ibid.). Following a rather economic thought, institutions perform in North's sense the function of reducing 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).

⁴ 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).

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.

Besides the identification of these 'design principles', Ostrom goes further and develops a theoretical framework to explain and predict when appropriators using small-scale CPRs are more likely to self-organize and effectively govern their own CPRs:

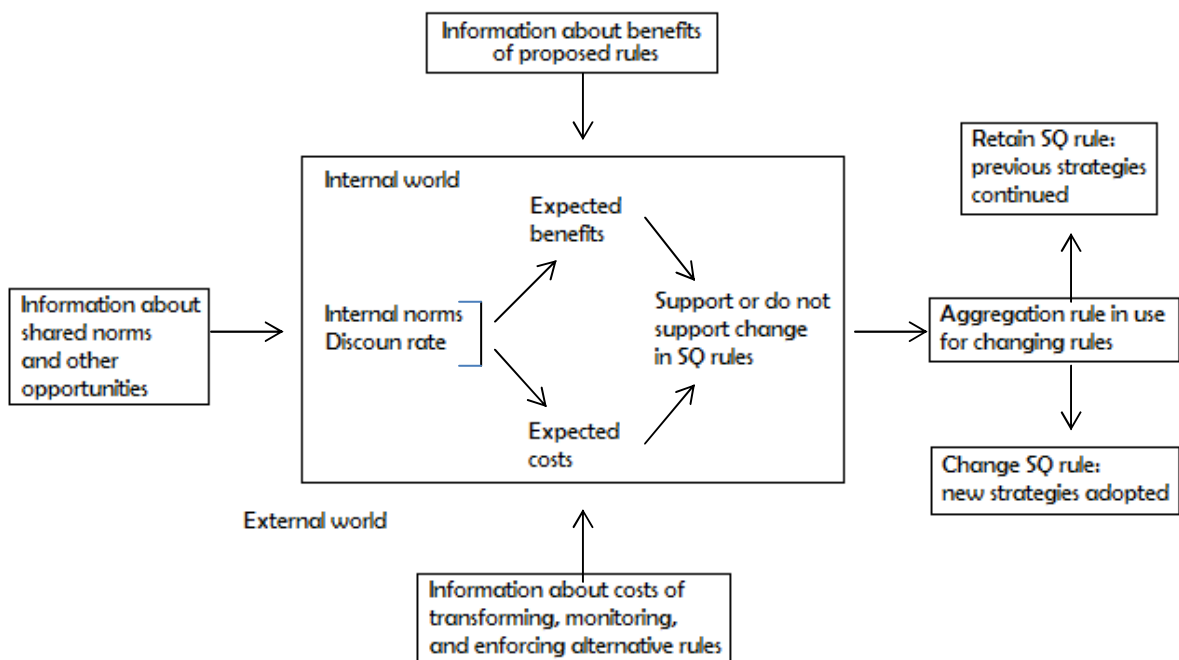


Figure 1. Ostrom's framework for institutional choice (Ostrom 1990: 193)

In Ostrom's model, the users of CPRs are perceived as individuals weighing expected benefits and costs when making decisions as these are affected by internal norms and discount rates. This is the general conception of individual rational action that Ostrom takes as starting point. The evaluation of the expected benefits and the expected costs depends on the information available to the individuals concerning the benefits (or harm) of the proposed rules and about the costs of transforming, monitoring and enforcing of alternative rules, respectively. The internal norms and discount rates are affected by the information that individuals have, concerning the norms shared by other relevant

individuals and concerning the range of opportunities that may or may not be available to them outside their CPR (Ostrom 1990: 193f). On the basis of the conception of individual rational action, then, these three types of information domains containing situational variables are, according to Ostrom, what an analyst needs to ascertain in order to predict individual strategies. Nevertheless, regarding to this, Ostrom states an important condition: “that individuals do not behave opportunistically in order to try to obtain benefits greater than those obtainable through straightforward behaviour. *This condition implies that individuals reveal their evaluations honestly, contribute to collective benefits whenever formulas exist for equitably assigning costs, and are willing to invest time and resources in finding solutions to joint problems*” (Ostrom 1990: 195, my emphasis). In an institutional-choice situation, then, the alternatives available to an individual are (1) so support the continuance of the status quo rules or (2) to support a change in one or more of the status quo rules (compare with Figure 1).

Regardless of Ostrom’s explicit warning to use her approach as a scheme for policy projects (Cleaver/ Franks 2005:3), it has been directly translated into project documents and serves as guide for taking action for CBNRM strategies.⁵ 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, above all anthropologists.

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

⁵ 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).

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). As shown above, in Ostroms 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 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 to do so, besides their differing interests regarding the resource. 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). If actors act in a self-interested strategic manner seeking those institutional rules that gives them the greatest share of benefits, 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). Lastly, institutions change, then, when strategic actors assume “that they have the power to change them, external events change and alter the long-run benefits produced by them” or if they assume that other arrangements will produce a more favourable distribution [for them]” (ibid.).

Surprisingly, the critics which point the missing role of power in Ostrom's model have rarely made the attempt to make a theoretical analysis of it. Predominately, instead, they just have named the deficiency of her model by giving examples from the field. In this paper, however, Knight's theoretical approach is taken as a basis for discussion for the findings regarding the water conflict in the research setting. Correspondingly the objective

will be to analyse if the models of Ostrom and Knight can complement one another or not. Moreover, 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 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.⁶ Here, following Knight, the Headman’s “breakdown values” (the costs of non-cooperation) is depicted and 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 economic 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 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.⁷

⁶ A social embedded institution is an institution based on culture and daily practice (Cleaver 2002: 13).

⁷ 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 understood as the water committee.

1.3 Structure of the thesis

This thesis is structured into nine sections. After this introductory segment, in section two the selection procedure of the region and of the research setting, as well as an overview of the methods applied in the field, their goals and implementation will be depicted. Subsequently, in section three, the research difficulties in the field are explained. The next section presents a brief list of the gathered data and a list of the participants in the study. The fifth section is concerned with a general description of the research setting. Its subsections outline, among others, aspects related with population numbers, households' sizes, political organization and general economic aspects of the researched community. Although the water usage and administration might be closely related to economic issues, due to the emphasis of this work on water, a separate segment is exclusively devoted to this topic: section six contains an overview of the water infrastructure in the research setting, its usage and management regulations. Subsequently, section seven provides a broad description of the water conflict in the research setting and its different aspects. In section eight, a discussion or rather an analysis is carried out on the findings of this study in reference to the theoretical foundations depicted in section two. The final section (nine) presents the conclusions of the project.

2 Approach

2.1 Selection of the region and of the ethnographic setting

The selection procedure for the region in which the study should be carried out was guided by the expertise and local knowledge of Prof. Dr. Michael Bollig (University of Cologne) and Prof. Dr. Michael Schnegg (University of Hamburg). The chosen region, the Sesfontein Constituency, adjoins the territories in which both of them already have conducted several anthropological investigations. Hence, the surroundings of the Constituency were well known and I could rely on various persons – with whom Prof. Dr. Michael Schnegg had previous experience – for assistance as well as insight regarding the research site before carrying out the fieldwork. These contacts were used for attaining general information of the communities in the area and for finding an interpreter. Besides for these practical reasons, the Sesfontein Constituency was chosen because there has been little anthropological fieldwork conducted there regarding water-related problems, only focussing predominantly on land property disputes (for example Sullivan 2003, 2004). By conducting scientific research in this region, the anticipation was to contribute to the exploration of this relative uncharted topic in the area.

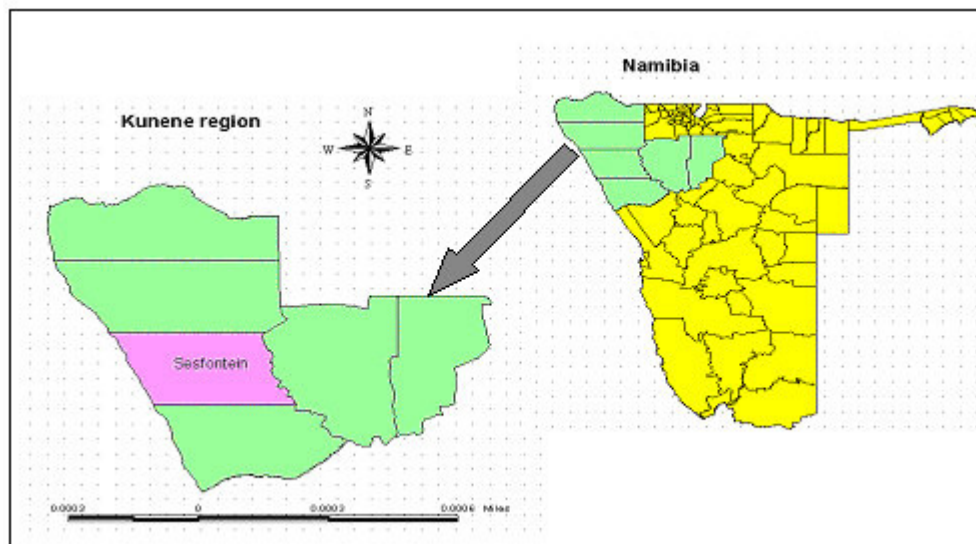


Figure 2. Location of the Sesfontein Constituency
(Source: Gulelat 2002)

The Sesfontein Constituency is characterized by a typically arid (dry) climate with low rainfall, high temperature, low humidity and high evaporation. The average annual rainfall ranges from < 100mm along the coast to about 150-200 mm per annum towards the east. The frequency of the rain is 20-30 days during the rainy season; the rainfall variability is

very high, which is a 50-60% deviation from the annual average. Moreover, the length of the rainy season is 1- 2 months with the peak occurring in March. The summer average daily temperature ranges from 31C°- 33C° and the winter temperature ranges from 8C°-9C° (Gulelat 2002: 10). The water sources in the area consist of natural water fountains or rainwater traps, boreholes supplied with machine pumps or hand pumps and wells (Gulelat 2002: 13).

The population of Sesfontein Constituency is constituted mainly by four major ethnic groups. These are Himba, Herero, Damara and Nama. The Herero and Himba are ethnic groups belonging to the Bantu language family, while the Damara and Nama belong to the Khoisam language family. Nowadays, in rural Namibia, these groups tend to practice a combination of cattle herding and subsistence agriculture, whereas cattle rearing plays a more essential role. Wage paying jobs and tourism bring them – in some cases – additional earnings (see for example Klocke-Daffa 1999, Schnegg 2009 and Murhpy 2003).⁸

In order to collect data, anthropological fieldwork was carried out actually in two rural communities in the region of the Sesfontein Constituency (North-West Namibia) for five to six weeks respectively. The time scheduled for the corresponding research activities was for three months between the 11th November 2008 and the 11th February 2009.⁹ Nevertheless, due to mechanical problems with the off-road vehicle on site, the start of the empirical work was delayed until the 18th December 2008. Though the terminal date for the research activities could be rescheduled for the 27th February; there was, one week less for the research activities than originally programmed.¹⁰ At this place, however, it is important to mention that this work focuses only on one of the selected communities – the one with the more intense conflict – due to space limitations. The description and analysis of the other community will later follow elsewhere.

In order to select the two communities for the research project, two main criteria were taken into account. The villages should have between 12 and 15 households and they should denote a situation of conflict (this last criterion was specifically according to the

⁸ 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.

⁹ The week before the beginning of the research activities was scheduled to make the necessary equipment procurements for the fieldwork, to prepare the vehicle for the journey and to conduct preliminary research at the Namibian Ministry of Agriculture Water and Forestry. The week after concluding the research activities should be used principally for servicing the vehicle as well as making the last necessary inquiries.

¹⁰ Until the 18th of December, the time was principally spent in making visa arrangements and obtaining the necessary permissions in order to extend my stay. The rest of the time was invested in library research.

objectives of the UNU-EHE project).¹¹ 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.

While the selection of the communities for the study was being carried out, I temporarily stayed in Sesfontein (approx. 800 inhabitants), the largest settlement in the same-named constituency. Food supplies as well as the only diesel supply facilities in the area are located in Sesfontein along with reference persons and local experts known by Prof. Dr. Schnegg, whom could be contacted in order to obtain some starting assistance. Through consulting these persons and with the help of my interpreter (who I employed with the advice of the reference persons known by Prof. Schnegg), altogether five villages could be short-listed.¹² Unfortunately, these five communities had a quite small number of households (8 to 10), but the other villages that came into question were quite large (18 to 20) in contrast. Considering the relatively short time at disposal for the research activities, I preferred to select two small villages in order to be able to carry out a more thorough investigation with less time pressure.

In order to get a closer impression of the short-listed communities and to learn more precisely if they were dealing with water problems or with a water-related conflict, we carried out a visit to each village.¹³ Upon arriving at the villages, the Headman of the respective community was approached in order to introduce ourselves, explain our research and to ask permission if the study may be conducted in their villages. As the Headmen have generally a good overview over their communities and over the problems being dealt with (so my interpreter), we decided to choose them as our key-informants during the pre-study-phase of the research settings. In this way, we informed ourselves about the water problems or conflicts in the short-listed villages. Only in one of the five visited settlements, could the Headman not be found. He was absent due to personal matters in other places far away from the village. In this case, a villager known by my translator was our contact person.

Although the Headmen were assumed to know their communities very well, I was aware of the fact, that only a partial view from the circumstances in the village concerning

¹¹ Larger communities were not scheduled for the project due to time limitations.

¹² My interpreter knows the region very well due to his regular work as a tourist guide. At the time of the research activities, he was 24 years old, unmarried and living with his mother, brothers and sisters.

¹³ «We» are the researcher and the translator.

water issues would be recorded by these first interviews. Since they are part of their respective communities, it could not be ruled out that they themselves are part of the conflict. Nevertheless, I was also aware that we could only get a superficial impression of the situation in the villages as several and more extensive interviews with different interlocutors would have been necessary to gain a deeper insight into the circumstances. This, in turn, would have implied several visits to the communities, which would have been very difficult to accomplish due to the time limitations described above.¹⁴

After visiting the five villages, water problems, latent tensions and conflicts in all of them could be assessed. At the end, however, the two villages in which subsequent fieldwork was carried out were selected primarily because of their particular circumstances in relation with their water problems and potential tensions regarding the water management. In the following, the situation of the village this paper is focused on will be described briefly.

Upon arriving in the village, which I will call here *Okarongo*, we met a young woman and asked her if we could speak to the Headman of the community.¹⁵ She said, she was his daughter and led us to a tourist campsite, where we found him. Her father, Simon, a man in the end of his fifties, wearing an old fashioned and dirty hat with only the half of its brim, but with modern *Ray Ban* sunglasses covering his one blind eye, presented himself to us not only as the Headman of the community, but also as the owner of the water point as well as the owner and manager of the campsite. After some small talk and explaining him the reason for our visit, he told us that he was the first settler in the area and that he was the one who dug the borehole on his own account before the other people settled in the village. The Headman told us that at first, the water hole was open and that water could only be fetched by pulling it up using a bucket. Nevertheless, in 2006, he had managed to install a hand pump over it. Although other community members had tried throughout the course of time to construct another water point with a hand pump, Simon told us that in fact his was the only watering place being used in the village, because the other one got damaged shortly after it was dug.

¹⁴ Moreover, apart from the long distances that (partly) had to be covered in order to reach the communities, the Headmen were approachable at best either very early in the morning (between 6 and 7 a.m.) or in the afternoon (after 4 p.m.), when the daily activities were finished (according to my interpreter). So, the visits could only be carried out at certain times. Furthermore, in respect of our interlocutors, it was scheduled from the beginning to visit the settlements twice in order to communicate with them if their village had been chosen for the study or not; a task that implied time investment as well.

¹⁵ In order to protect the anonymity of the informants, their names and the name of their village have been changed in this paper.

To the question if there was a water committee, our dialogue partner responded affirmatively that he was the chairperson of the committee. To the question if the community was having water problems or a difficulty developing rules for the water management, the Headman only expressed his preoccupation in relation with the increased number of people settling nowadays in the area and using his water point. His concern was the scarcity of the water due to the increase in usage. If this situation, in turn, had been a source of conflict in the past or in the present days, Simon said it had not.

While our visit, four South African students had been volunteering since three weeks with the amelioration of the Headman's campsite and so we took the opportunity to talk to them. Some of the renovations that the students were carrying out were in order to make the camping place more attractive to tourists and to ameliorate the cultivation of vegetables/fruits by constructing a small pool for collecting rainwater in order to irrigate the garden. Both were means to improve the income of the community, said one of the students. The campsite was constructed by Simon and has been functioning since 1998. The shower, the toilet and the garden situated in it at the time of our visit were being provided with the water from Simon's water point.

Although at first glance, the community was not having any pronounced conflicts, there were some interesting details that indicated some potential tensions regarding the water management in the village. One of these was the Simon's preoccupation with the increased number of households using his water point. This reflected his uncertainty regarding the water availability of water at the water point and the fear of resource overuse. With this background in mind, the question arose how the community was dealing with this issue and how it was shaping the water access and usage in the community. Considering the privileged bargaining position of our informant (i.e. Headman, owner of the water point and owner of a campsite that was apparently bringing benefits to the whole community), I asked myself if the negotiation of the water usage/access rights were really running without any kind of tensions, like Simon suggested. Did he, thanks to his position and principally through the ownership of the water point, have an advantage that facilitated him to impose his interests over those of the community concerning the water access and usage? Therefore, were there any kind of power or dependency relations between him and the community involving water access rights?

It was principally these questions, which led to the decision of selecting *Okarongo* for the study. After reviewing the situation in the other villages and their suitability for the research, the circumstances in *Okarongo* were thought to be an interesting link for an

ethnographic fieldwork, where they could be scrutinized deeply through the designed methodological approach for the project (see next section). My interpreter did not have any objections to camping permanently in the village during the research activities, although Sesfontein, where his household was located, was more than one hour drive away.¹⁶ After having visited the other villages in order to inform their respective Headmen that we would not conduct the study in their communities, we came back to *Okarongo* in order to inform Simon that the settlement had been selected for the study and he reconfirmed to us his permission to erect our tents in the area.¹⁷

2.2 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. In this section, each method and its respective goal as well as the procedure is described in detail.

2.2.1 Participant Observation

The research project 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. Participant Observation implies proximity to the participants of the studied community/society with the aim of establishing social relations in order to learn about the everyday life in the research site (Hauser-Schäubling 2003: 34, 38). Therefore, Participant Observation was for this study a very important instrument to understand the daily routine of the community and, to be able to design proper questions for the ethnographic census, to develop the questionnaires for the group Network Analysis and for the semi-structured interviews. In addition, as a supplement to the methods described above, Participant Observation helped in gaining a better understanding of possible discrepancies between how the participants described their behaviour in the interviews and how they actually behaved. Other forms of cooperation, rivalries and some interactions between the villagers that were not or could not be assessed with the other implemented methods, could also be better recorded or became clearer through this research tool.

¹⁶ For accepting these circumstances, I am very grateful to him.

¹⁷ The arguments told to the Headmen why we did not choose their communities referred principally to reasons of comparability, since the project was planned for two villages.

While applying this method, the cultural knowledge of my interpreter as well as his perspicacity was very helpful. Through his advice I was able to better understand what I was observing so to better predict when to be prudent and where to place emphasis.

2.2.2 Ethnographic Census

At the beginning of my 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 Ethnographic Census questionnaire is a proper methodological instrument to collect systematic basic information from a (more or less) defined and manageable entity like the community foreseen for this project.

During the preparation phase in Germany, the design of the census was constructed based upon the guidelines proposed by Lang & Pauli (2002) and conceived under the mentoring of Prof. Dr. Michael Bollig (Institute of Social Anthropology University of Cologne) as well as Prof. Dr. Michael Schnegg (Institute of Social Anthropology University of Hamburg). As the specific situation in the future research site could not be foreseen with accuracy, we were aware of the fact that the census questionnaire could, or rather, should be supplemented or modified according to the circumstances found in the selected research-site. Thus, informal conversations with several community members, Participant Observation, the advice of my interpreter and a corresponding pre-test were crucial for compiling the final version of the census questionnaire in the community. Other necessary modifications were also carried out throughout the course of the fieldwork.

The household was the unit of investigation for conducting the survey. 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”. 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).¹⁸ This inquiry is 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).

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 in the households. Moreover, as the main economic activity in the region is livestock farming, which strongly affects water-usage, the number of animals kept by each household was recorded along with which animals are brought to the watering points, how often they are brought and how long the animals remain at the points. Another important economic activity in the region is the subsistence irrigation agriculture using small plots of gardens. Therefore, inquiries about the ownership of gardens, their size and their cultivation and irrigation infrastructure were formulated. 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?*).¹⁹ Altogether, 49 questions were formulated in the census.

The participants, who responded to the census questionnaire, were mainly the Heads of the households. In cases where they were absent, the interview was carried out with their wives or other adult household members in order to make good use of time.²⁰ When the Head of the household returned to the village, the census was supplemented

¹⁸ In the region it is common that the children stay in school hostels during the schooling season.

¹⁹ The answering of the last question of the census, however, stretched itself throughout the whole duration of the fieldwork since several visits to the households were necessary to better understand the dynamics of the conflicts.

²⁰ Before beginning with the research activities, I told my interpreter that his task should not be limited to translating, but that he should also give me advice based on his cultural knowledge, for example, when certain interviews should be carried out and when it is prudent to end an interview. In this way, I was able to determine when it was appropriate to proceed knowing it was not a problem for the Head of the household.

where necessary with their additional information. Depending on the household, it took a minimum of one hour and a maximum of four hours to carry out a census questionnaire.

Before beginning with the survey, the participants were informed about the purpose of the study and were provided with information on how the data would be used, that is, the degree to which the information would be kept confidential. They were also informed about the questions that would be asked, how long it would take and that participation is voluntary. Due to the possibility of handling sensitive information related with a water conflict, the participants were asked if they wanted to respond to the questionnaire (especially to the last question of the census) in a place in which they felt most comfortable.

2.2.3 Extended Case Method

Problems or rather (potential) conflicts were identified on the basis of the ethnographic census. In order to analyse them subsequently 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. Within this methodological approach, Participant Observation and ethnographic interviewing play a central role (Burawoy 1998; Sullivan 2002).

The other methods described below (the Wealth Ranking, the conflict mapping, the group and individual Network Analysis) have been utilized not only as tools for describing general circumstances in the community, but also to better understand and to describe in as much detail as possible the situations of (potential) conflict within the village.

2.2.4 Semi-structured Interviews and informal conversations

Based on the information gathered through the survey, a respective list of questions was developed concerning additional topics in need of being covered in further semi-structured interviews. Nevertheless, the progressive identification of expanded levels of social context until data saturation implied in the inductive emphasis of the ECM (Strauss/ Corbin 1998) could only be applied to a constrained extent (see section 3).

The Semi-structured Interviews, however, did prove to be very useful as it demonstrated the interviewee that I was interested in a particular subject, but left both me and the respondent free to follow new leads (Bernard 2006: 212).

The Heads of the households were our main dialog partners. However, we did approach any adult villager (male/female), who could help us to understand specific aspect of the water problems or conflicts or who was somehow involved or playing a relevant role in them (for example, the water committee members). In addition, the interviews were conducted in places where the participants felt most comfortable to talk freely. The interviews took a minimum of 15 minutes or a maximum of two hours depending on the participant and the topic. Apart from interviewing community members, one semi-structured interview was conducted with the councillor of Sesfontein in his office in order to assess legal information about particular campsites and water point regulations. This interview took an hour and a half.

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. These conversations were carried out spontaneously while leisurely spending time in the village, conducting Participant Observation or with villagers who came to visit me.

2.2.5 Conflict Mapping

Once the problems concerning water had been identified through the census and the supplementing Semi-structured Interviews, the Conflict Mapping was a tool to 1) deepen the information about the 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,

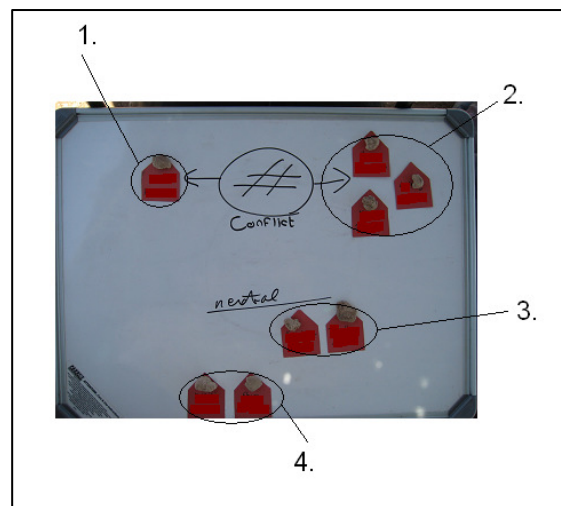


Figure 3. Example of the Conflict Mapping

it could be determined 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. After finding a place where the participant

(each Head of the household)²¹ felt comfortable to take part in the interview, cards representing each household (the names of the Heads of household were written down on them) were given to him. Thereupon, he was asked to organize them on a whiteboard according to their relation within the context of the water problems. Thus, they were told to keep the cards separated if they were having quarrels or different opinions or positions with one another or to place them together if they were “friends” in spite of the problems. It was also allowed to place groups of cards separated from each other to show if there were several groups of households sharing the same opinions or positions as others or in contrast to others. Each interview took approximately a half an hour.

Figure 3 shows an example of how the method was applied. After positioning the cards, the participant of *Okarongo* was asked to explain their placing on the whiteboard. According to him, the household within the circle number one had different water related problems with each household than within the circle number two. He also explained the problems and the reasons for these problems. However, there were other households (circle number three) who had remained neutral in the conflict. They were not supporting or sympathising with any of the households involved in the disputes. The households in circle four were new in the village and therefore unaware of the problems between the mentioned households, according to the participant. That is why they were placed separated from the rest.

Similar methods to visualize particular situations involving different actors proved to be very useful within the framework of research projects (see Schiffer/Hauck/Abukari/ (2007), where a “Net-Map” is implemented in order to explore the linkages between organisations within agricultural water projects. The Conflict Mapping was developed taking inspiration from Hübner-Schmid/ von Borries/ Hasemann/ Schnegg (2003).

²¹ Except for one case: one of the oldest sons (24 years old) of a certain household was asked to participate instead of his father, who was absent for many days.

2.2.6 Wealth Ranking



Figure 4. Carrying out the Wealth Ranking

In addition to the survey, 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.

For conducting the Wealth Ranking, the Head of each household was asked to participate.²² The interviewees were given cards with the names of each Head of household. Then they were asked to order them on a white board according to their richness and poverty respectively. On the top of the whiteboard, the richest household should be placed and on the bottom the poorest while the rest of the households should be placed in-between according to the richness/poorness criteria. The vertical distances between the households represented in cards should correspond to the proportions of wealth differences between them. It was also allowed to place households next to one another (due to their economic similitude). The Wealth Ranking was then based on the rough estimations that every participant made in relation with the amount of animals a certain household owned although the exact number of animals owned by each household remained unknown by the respective participants. Only approximations could be made as to which villager owns more or less animals than other villagers. The duration of each interview was approximately a half an hour.

2.2.7 Group and individual Network Analysis

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

²² Again, the same adult male (24 years old) mentioned before was our participant instead of his father.

project to explore the relations of social support within the framework of the water problems/ conflict.

Hence, in order to not only better understand possible dependencies, but also cooperation, reciprocity and sympathies between the main representatives of the households in a holistic and systematic way, the following questionnaires were developed:

(Questionnaire for the Heads of households)

- 1) *If you need transport to go to Sesfontein, which person in this village do you ask for a lift?*
- 2) *If you are about to castrate a young bull, which person(s) in this village do you ask for help?*
- 3) *Which person(s) in this village do you normally visit for a chat?*

(Questionnaire for the wife/wives of the respective Head of household)

- 4) *If you need transport to go to Sesfontein, which person in this village do you ask for a lift?*
- 5) *If you are out of sugar, which person(s) in this village do you ask to give you some?*

During my stay in *Okarongo*, I recognised that its villagers had to travel to Sesfontein or other smaller villages for several reasons (to have their child vaccinated, to collect their pensions, to sell animals, to visit relatives or to buy food supplies, etc.). Sesfontein is located at least a one hour drive away from *Okarongo* and the next shop with food supplies is a half an hour away.

The villagers of *Okarongo* have three options to reach Sesfontein or the other villages: 1) to walk to the main road (11km) and wait for a lift (which could take several days until a car with free space passes by), 2) to travel with one's own donkey-cart or the donkey cart of someone else (which takes 10 hours to reach Sesfontein and four to reach the next shop) or 3) to ask one of the three car owners in the village for a lift. Obviously, the third option seems to be the most comfortable. However, it has been hypothesised that the third option could imply for the villagers needing to go to Sesfontein or to the next shop, more than a simple choice considering the characteristics of the respective car owners. These three persons are: a) the richest man in the community and a neutral actor in the conflict according to the majority of the villagers, b) a "middle-class" man stated as being in direct conflict with the Headman, according to several villagers or c) the Headman, owner of the water point and of the campsite, but stated as being 'poor' and relatively isolated in the conflict according to the Wealth Ranking and the Conflict Mapping. Thus, by electing the third option of asking a car owner for a lift, certain sympathies (or antipathies), but also dependencies could be expressed by the participants.

This was the main reason for inquiring after which villager is asked by the participants for a lift. After answering the question, the participants were asked to specify why they normally ask the man they mentioned in order to prove the previous assumptions.

The second question in the questionnaire for the Heads of household was relevant for the sake of conducting the group Network Analysis due to the indispensability of social support for the realisation of this kind of activity. As livestock farming is the main economic labour in the area, castrating a bull is a common activity to sell animals for a better price. Through castration, the weight and meat quality of a young bull ameliorates. A young bull is a relatively big and strong animal so it is necessary for several men to hold it down while the castrating procedure is carried out, according to my interpreter.²³ Thus, this question was asked with the aim of determining possible relationships of cooperation, reciprocity or possible dependency.

The last question in the questionnaire for the Heads of households was aimed at determining the visiting habits among them, taking into account the framework of the water problems or conflicts. Through Participant Observation, it was assessed that the main representatives of some households have several socialising practices in common such as playing board games or cards together, occasionally eating together and also just talking with each other for a while. The visits described as just stopping in “for a chat” were assessed in order to identify relationships in which the participants approach other congeners spontaneously on their own accord and do so without the intention of asking for social or material support. This assessment was carried out in the pursuit of comparing the outcomes of this question with those of the Conflict Mapping and also the information gathered through the Semi-structured Interviews. Hence, it was pursued to identify symmetric or asymmetric relations, sympathies or antipathies among the main actors of the conflict.

The second question in the questionnaire for the married women in the respective communities explored sharing structures within the villages. Sugar is one of the most important energy components of the diet and is used commonly to sweeten the maize porridge or the tea. As cooking is a common (but not an exclusively) female task in the villages, the women send at mealtimes the children to other households to ask for sugar if they are in need. Other studies in Nord-West Namibia have shown that this practice

²³ This could be confirmed personally in another visited village, where several persons (and me) had to hold a young bull down very tightly allowing the Head of the household (who made the decision to castrate the bull) to carry out the procedure without hurting the animal (or himself) unnecessarily.

implies a high grade of reciprocity (see for example Schnegg 2006). Besides food (maize meal, sugar and milk) other items such as firewood, washing powder and tobacco are exchanged to a lesser extent. Exploring these relationships it has been attempted to give insight into whether there are households excluded processes of sharing within the context of the water conflict and so, in turn, to gain a better understanding of its dynamics. Conducting each questionnaire for the group Network Analysis took approximately half an hour.

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. Therefore, the questions stated to the participants were the following:

- 6) *Do you know an organisation, an official or any other person, who you can approach in order to manage the water problems/conflicts existing in your village?*
- 7) *Do you know any persons from other water committees in other villages?*

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). Conducting each questionnaire for the individual Network Analysis took approximately 10 minutes.

3 Research difficulties

3.1 Fieldwork role and its effects on the field

“The way in which the researchers establish themselves and their projects will influence the pattern of events that occur in the field, the degree of access that they are given, and the relationships that they establish with their informants.”
(Burgess 1982: 15f)

From the beginning, we could safely assume that our anthropological fieldwork would not be conducted in a situation of violence, for although disputes over water supply in other communities in Namibia have previously been reported (for example Hohmann 2004), none were of a violent nature. Moreover, Prof. Dr. Michael Bollig as well as Prof. Dr. Michael Schnegg – both of whom mentored the project during its preparation phase as Namibia specialists – reinforced that it was generally highly unlikely to find circumstances of violence in the region, where the research activities were to take place. However, it could not be completely ruled out that the conflict may turn violent during or after the period of fieldwork activities; that something that is not violent can still constitute a risk to a person; and that the act of probing into local conflicts can by itself have social impacts in peoples’ lives (as people may worry why these questions are being asked, what others are saying, etc.). Therefore, we strove to conduct the fieldwork as sensitive as possible.

Once in the field, the situation found was in fact to be not of a violent nature, but some tensions in relation with water issues did exist. Therefore, measures were taken to prevent these latent tensions from becoming open ones. For example, compromising information was kept strictly discrete by conducting interviews in private places (and places, where the informants felt comfortable to talk), treating the personal information of the participants confidential and by being very careful in the formulating of questions. Nevertheless, it was almost inevitable that through my fieldwork role(s) and the relationships entered the community (if not through my mere presence) the field would have remained uninfluenced. A consequence of this was that the discourses in relation with the water conflict became more active during fieldwork and that the relative tense calm in the village became to some extent perturbed.²⁴

²⁴ Nevertheless, this did not lead in any case to violence throughout the course of the fieldwork. If any personal aggressions took place in the aftermath is unlikely, as one month later after concluding the research activities in the setting, trustful participants declared that no incidents of a violent nature had occurred and that the situation in the community was similar to the previous one before my stay.

The first days after my arrival in *Okarongo*, I introduced myself to every household as a student interested in how the community manages the water access/supply and asked if there were any kind of water problems or difficulties establishing regulations in relation with the water administration. Often, the dialogue partners wanted to know more about the specific reason of my visit, for example, from where I received the money to travel from Germany and if something would change in their communities after having completed the study. To this, I responded that the fieldwork would be the basis for writing my degree thesis in anthropology and that a report with the fieldwork findings would be given to the United Nations University in Bonn. I explained that the journey was financed by these entities as well as the University of Cologne and Hamburg and that the equipment (tent, four by four vehicle, etc.) was provided by them too. To the question if something would change after concluding the fieldwork activities I answered that the UNU-EHS was planning to give the Directorate of Rural Water Supply at the Namibian Ministry of Agriculture Water and Forestry – which gave the correspondent permission for conducting the research project – a copy of the report. To this, I added that I would not have any influence on how these external actors might help financially or diplomatically to solve their water problems and that the possibility of change would rather depend on them.

Nevertheless, my answers did lastly have a certain influence on the collected data. Several participants described themselves as being affected by the abuses of the Headman or rather because he locked the hand pump of the village. Because apparently, no negotiations with the Headman had been possible until then and because the intervention of external authorities to mediate in the water problems of the village had not been fruitful, they saw in me a kind of potential messenger of their complaints to very important and influential people.²⁵ Several dialogue partners, for example, told me after describing to me indignantly and in detail the actions of the Headman that I should reproduce all what they had told me elaborately in my future report which I would give to the Ministry.

In some cases, however, I got the impression that some participants even used the situation to exaggerate the actions of Simon, the Headman, and to reinforce their role as a victim within the conflict. Two Heads of household, Petrus – a joking man ending his

²⁵ However, this was not a general phenomenon in *Okarongo*. There was one household in which my fieldwork role had the inverse effect. The Head of this household, Afrika, was the only interviewee in *Okarongo* from which I got the impression that he was not willing to talk about the conflict in general. In contrast to the other households that participated in the Conflict Mapping (Jonas, Uakatora, Adult son of Petrus, Andreas), for example, Afrika was the only one who stated that all households are “friends” and he was the only one to not declare that the Headman locked the hand pump. In this case, I believe that the participant wanted to avoid getting involved in the conflict with his declarations about it.

sixties, but with a notable air of authority – and Jonas – a corpulent family man mid in his thirties – for example, said that every time the Headman locks the hand pump, they are forced to go to the natural fountains to provide water for their animals. Nevertheless, I found out that these participants, brought their animals (like the animals of other households as well) to the natural water fountains anyway, because – due to overgrazing problems in the immediate surroundings in the village – the animals must be brought out of the community area in order to graze. As my tent was situated (after we moved from Simon’s place; see below) ten meters away from the water point, through sporadic observation I noticed that Petrus’ and Jonas’ households did not bring their animals to the point very regularly during the time they assured me they would bring their animals to water (early in the mornings or in the afternoons).²⁶ Later, moreover, once while accompanying their sons in their task of herding the livestock in the direction of the natural water fountains, they said that they (as other boys from other households) actually bring the animals over to the natural water fountains quite often, because the animals can drink and graze in the same area. Furthermore, on that occasion, they mentioned that they even take turns with young men of neighbored households to bring the animals over to the point; a method that even facilitated their labor.

Simon, for his part, described himself as being used by his neighbours and as being a victim of their inconsiderate behaviour during my stay. He said that no one helped him with money for the maintenance of the hand pump although everybody used it and that unsupervised cattle had, on several occasions, destroyed the fence of the campsite he had constructed with great efforts. Above all, at the beginning of the fieldwork, he insisted that I should write in detail about the injustices of his neighbours, and on repeated occasions, he asked me if I could manage to get donations for him through my connections to the institutions/organisations I was representing.

Besides the prior, there was another important event that influenced the situation in the village: Simon came to know some of the negative things the villagers were telling me about him. In the second household in which the ethnographic census was carried out, the household of Jonas, several accusations against Simon were recorded. After reviewing the collected data, some dates of births and family backgrounds seemed incorrect so I went back to Jonas the next day in order to clarify the doubts. Before beginning the interview with him, I noticed that the Headman’s sixteen-year-old daughter was around. As the

²⁶ Systematic observation at the water point has not been carried out, since it is a method that needs a great investment of time (cf. Beer 2003: 119-141).

conversation with Jonas was not about the water problems in the village, I did not insist on conducting the interview in a separate place (like I did the first time). After correcting the data, the Head of household raised his Head and while looking at the Headman's daughter he said loudly the following in Damara: "[...] and just to remind you of what I said the last time: the Headman was not the only one who found and dig the borehole and he is not the real Headman of this community, the real Headmen are in *Khowarib!*". With this affirmation, it is very probably that he wanted Simon to find out (through his daughter) what was being communicated during my stay in the village and that he was calling him or rather his discourse into question.

Obviously, Simon found out what Jonas said about him and consequently, throughout the course of the research activities, the Headman began to worry more and more about the contents I was recording through the interviews. Understandably enough, even though I assured him that all names including the one of the village would be omitted in the report, he still worried that false information would appear about him and affirmed that whatever I was assessing was definitely a lie. To this, he demanded that I come to him before concluding the research activities, because he would give me an extensive interview about the truth in the community (what never happened, as I will explain later).

In addition to the prior, although it might sound curious, the efforts of remaining a neutral actor in the light of the existing tensions in the research site did not necessarily contribute to calm the situation. In light of the tensions determined through the ethnographic census and the interviews, we made the decision to move from the Headman's area, where we were camping.²⁷ More and more villagers had begun asking us why we were camping in the Headman's location as there were better places for us to camp. However, Simon took offense at our plans of moving. He thought other Heads of household had convinced us to leave although we underscored that we wanted to move because of neutrality reasons closer to the river (almost in the middle of the village, but still independently situated from the other households).

²⁷ As soon as we arrived in *Okarongo* and began with the research activities (18.12.08), we approached Simon as we thought he was the legitimate authority (more on this in section 5.5). We asked him in which place within the village we could erect our tents. At first, he offered us his campsite and then the shadow of a small tree in his area. We refused his suggestion of staying in his camping place, because in doing so, we would have been cut off from the daily life in the village (which would have contradicted the purpose of conducting Participant Observation) and because of neutrality reasons. We were concerned that the villagers may think that we were sympathising or siding with Simon in case of existing tensions. However, towards his second offer we saw ourselves under pressure to accept as it would have been impolite to refuse staying in the Headman's area, according to the advice of my interpreter. However, we decided that we would stay under the small tree only for a short time.

After moving away from his area, other villagers came to our camping place in order to ask for cooking oil, sugar, sometimes for a lift. This did not happen while we were staying at Simon's location, possibly because the other villagers did not dare to approach us while under the Headman's care. I assisted the other villagers whenever I could while I also continued to help Simon. Nevertheless, he was annoyed because I was not exclusively doing favours for him.

Throughout the course of the fieldwork, he began to see us with more mistrust, began to argue against other villagers more intensively and even forbid his household members to speak with me in his absence. Sometimes, while carrying out an interview with a particular Head of household, Simon's daughters came by. Several times the conversation with the respective dialogue partner had to be stopped due to these visits. One time, an interviewee told me that the Headman was sending his family members where we were conducting interviews in order to spy on us and hear what the other villagers were saying about him.

At the end of my stay, he even tried to blackmail me. He said, he would only conduct further interviews with me (inclusive the one he demanded I should do with him before leaving) if I called the village together and read in front of the community what everyone had said about him. Simon was very curious about the information I had recorded and wanted to know exactly who was saying what against him. I refused vehemently to call the inhabitants together and so, in turn, renounced a part of the Headman's information. Besides the risk that the conflict could intensify through calling the village together was very high considering the fact that a villager had already fought with him in the past because of water issues, more important was for me to be absolutely discrete.

But it is important to mention, that the Headman was not the only person who tried to blackmail me. During the last interview with Simon (the last day of my stay in *Okarongo*) he declared that three Heads of household (Afrika – a man ending his sixties giving mass every Sunday in *Okarongo* with an old and mended bible –, Andreas – an always stony-faced but communicative man beginning his forties – and Petrus) also were in possession of a copy of the key that opens the hand pump's lock. Unfortunately, none of these three Heads of household were in the village at that time. While doing research in another village, I tried to reach Elizabeth, the wife of Andreas, who has a mobile phone, in order to ask her if her husband is truly in possession of such a key. She responded that she would give me the information if I provided her and her daughter a lift to the village where the child attends school, which is approximately a four to five hours drive (there and back).

Her request fairly surprised me, as she was always very cooperative to me. I am the opinion that demanding money or other kinds of donations/presents for information is legitimate, but I found her request quite exaggerated, considering that I had repeatedly offered her a lift to the grocery shop, her daughter to the hospital and had given her from my food provisions every time she needed something. Moreover, I was already carrying out fieldwork in another village and fulfilling her demands would have implied significant diesel consumption considering the limited budget. Therefore, I refused to pick her up and so the information could not be proved.²⁸ Sometime later, however, I was able to ask if Afrika, Petrus and Andreas were in possession of a key, as Simon declared. I met them at a funeral in Sesfontein and asked each of them separately if they had ever heard of anyone else in the village having a copy of a key that opened the hand pump and all of them told me that the Headman was the only one in possession of such a key.

As I have portrayed, it may be more accurate to say that the field was not only influenced by my fieldwork role, but also that I even became involved within the tensions in the community because of that role and naturally, because of the fact that the Headman gained partial knowledge of the information I was collecting.

Researchers, who enter the political fabric of the communities or societies they study, can become unintentionally involved in their tensions in part not only due to their role, but sometimes even because of not choosing a side (Cohen 2000). It is difficult to foresee how the events would have developed in the field if I had remained in the Headman's place, but I wanted to prevent any circumstances that could have symbolized any kind of sympathies with the one or the other party. In *Okarongo*, I preferred to remain or better to become neutral (by moving away from his area and by offering my help to other villagers just as I continued to offer my help to the Headman), but this was obviously understood by Simon as if I had chosen to be against him.²⁹ I believe that had I not chosen to strive for neutrality, it would not have been – considering the fieldwork situation and my fieldwork role – a better option, since I felt a responsibility to represent neutrality not only because of the institutions/organisations I embodied, but also in order to be aware of my objectivity as a researcher in the research setting.

²⁸ Similar types of demands, yet less exaggerated, were also communicated by other villagers a couple of times. I tried to explain to the villagers many times that I was a Colombian student in Germany having sometimes money shortages and that I was only a researcher doing fieldwork with a limited budget. Nevertheless, being “white” and the fact of coming from far away in the name of an organisation, which is part of the United Nations, implied for them that I had plenty of money.

²⁹ Here I would like to underscore that neutrality would not have implied that I remain inactive in cases of physical, mental, sexual or other kinds of abuse witnessed by me (CSAA 1994).

3.2 Methodological difficulties

The reconstruction of the water problems, or rather, their backgrounds and facets was not an easy task due to the already described fieldwork situation and it is, therefore, highly probable that certain information remained ‘hidden’.³⁰ Moreover, some actors preferred to limit themselves to depictions of the opponent as the only blameworthy and thus, concealed actions that may have revealed their co-responsibility in some situations of the conflict.³¹

These obstacles represented remarkable difficulties in finding out the ‘truth’ about certain issues. The evidence of certain problems relied only on the testimonies of the participants and they were partly very inconsistent or fragmentary. Some issues could be observed in the field, but not all of them, and therefore one must consider that many of the findings rely solely on the recorded discourses and not on documents or visually registered ‘deeds’. In order to be able to make a statement as substantiated as possible, attempts were made to proof some assertions of a particular participant by interviewing other actors to see if their answers coincided.

As mentioned above, I have strived to be very careful in asking questions in order to prevent raising the tensions in the village. This proved to not be an easy task in some cases. In *Okarongo*, for example, some villagers told me that the Headman locked the hand pump, but I was not able to ask Simon directly why he was doing this because he would have tried to find out who told me. This could have produced (more) mistrust between the villagers so instead I asked him what the welded eyelets on the hand pump were for. To this question, he answered in fact that he had put them there in order to lock the hand pump, but the reason why he closes it was another one (see section 7).

Concerning the ethnographic census, only one noteworthy difficulty arose. As not every household member is in possession of an identification card, many birth dates had to be stated on the basis of estimation. For this reason, the univariate analysis of age of the village population cannot be considered precisely correct.

To conclude this section, it is important to mention again that the time framework for conducting the research activities was rather limited. In order to implement the

³⁰ In anthropology, it is well known that some fieldwork roles can facilitate, but also impede access to different types of information (Snow/ Benford/ Anderson 1986).

³¹ In *Okarongo*, for example, some villagers concealed that their animals had destroyed some objects in the Headman’s campsite and that they subsequently, did not give him any compensation for the damages – a reason why Simon was said by other participants, to have locked the hand pump. The concerned villagers accused him vehemently that he denied them the access to water mentioning, however, other reasons for it.

prepared methods and gain a general understanding of the water conflict in the village, time was an important factor in finding the adequate place for the correspondent interviews. The participants were not always available because they did not have time (or interest) or because they were out of the community. In *Okarongo*, for example, two Heads of household (Uakatora – a serene man labelled as the “richest” in *Okarongo* and Petrus), in particular, were only in the settlement two times for two to three days during my stay and the Headman was absent for almost two weeks. When these men were in the village, they were always quite busy and although their involvement in the conflict was important, only short interviews could be conducted with them.

4 Gathered data and characteristics of the informants

4.1 List of the gathered data

Altogether, the following data was collected in the research setting:

- 8 Ethnographic Census with 46 questions each.
- 7 conducted Wealth Rankings (the Headman reserved his right not to participate).
- Group Network Analysis between all Heads of households (3 questions) and adult women (wives) (2 questions) in the village.
- Individual Network Analysis with 3 members of the water committee (1 question each).
- 4 focused interviews with members of the water committee.
- 5 interviews using the Conflict Mapping (the Headman reserved his right not to participate and two Heads of household were new in the village and declared not knowing anything about the conflict).
- 1 interview with a governmental official in Sesfontein.
- Several field notes (on the basis of informal conversations with the villagers and Participant Observation).

4.2 The informants

A majority of the participants are Heads of household and their respective wives in *Okarongo*. Table 1 gives an overview of the participants according to their age, occupation and – if applicable – special function in the community.³²

Table 1. General characteristics of the participants

Fictitious Name		Age	Occupation	Special function in the village
Afrika	(Head of HH)	69	Farming	Priest
Joan	(Wife of Head)	67	Farming	Treasurer in the WC
Adam	(Grandson of Head)	31	Tracking for NGO/ Farming	-
Jonas	(Head of HH)	34	Tracking for NGO/ Farming	-
Emma	(Wife of Head)	26	Farming	-
Simon	(Head of HH)	58	Farming/Campsite Manager	Headman
Ngunoe	(Wife of Head)	48	Farming	(Treasurer in the WC)*
Naipera	(Daughter of Head)	28	Farming	Secretary of the WC
Uakatora	(Head of HH)	68	Farming	Treasurer in the WC
Aline	(1 st Wife of Head)	45	Farming	-
Naipera	(2 nd Wife of Head)	28	Farming	-
Mamikie	(Sister of Head)	45	Farming	-
Petrus	(Head of HH)	68	Farming	-

³² As noted above, apart from the community members of *Okarongo*, an interview with a governmental official in Sesfontein was carried out. His specific position will not be supplied here in order to protect his identity.

Table 1. (continued)

Fictitious Name		Age	Occupation	Special function in the village
Presilla	(1 st Wife of Head)	64	Farming	-
Brenda	(2 nd Wife of Head)	29	Farming	-
Usia	(Son of Head)	23	Tracking for NGO/ Farming	Secretary of the WC
Rio	(Son of Head)	29	Farming	-
Andreas	(Head of HH)	42	Tracking for NGO/ Farming	First representative of the NGO in the village
Elizabeth	(Wife of Head)	39	Secr. of the NGO/ Farming	-
Sofia	(Daughter of Head)	21	Farming	Organizer of the WC
Mutoto	(Head of HH)	46	Farming	-
Magdalena	(Wife of Head)	27	Farming	-
Josef	(Head of HH)	46	Tracking for NGO/ Farming	-
Magrieta	(Wife of Head)	31	Farming	-
* The exercise of this position was controversial				

Apart from the participants depicted above, other persons also voluntarily supplied information within the framework of informal and brief conversations while conducting Participant Observation.³³ All of these persons are adult sons and daughters of the respective household's representatives.

³³ Most of these conversations simply belong to the stationary ethnographic research on site.

5 Description of the research setting

5.1 Population numbers and sex composition

As noted in the section 2.2.2, the aim of the Ethnographic Census questionnaire was to register both the population permanently living in the village (the “de facto” population) and the persons considered to be household members even though they are living outside the community temporarily or for an indeterminate period of time including schoolchildren (the “de jure” population). Table 2 shows the amounts and percentages of persons registered through the census in *Okarongo*.

Table 2. Amounts and percentages of individuals registered through the census

Total of persons registered	110 (8 Households)		
Living permanently in the community	79 (71,81%)	38 Women 41 Men	(48,10%) (51,90%)
Living permanently outside the community	12 (10,1%)	3 Women 3 Men	(25%) (25%)
		5 Women 1 Man	(41,6%) (8,3%)
		7 Girls 12 Boys	(36,8%) (63,15%)
Children schooling	19 (17,27%)		

In *Okarongo*, 110 persons were registered through the census carried out in the eight households of the community. From them, 79 (71,81%) live permanently in the village, 12 (10,1%) live permanently outside the community and 19 (17,27%) children are attending school outside the village. Altogether, the persons living permanently in the setting constitute 38 women (48,10%) and 41 men (51,90%). Thus, the gender proportion is not very dissimilar.

The adult persons living outside the village can be divided into two categories: household members that did not come to settle in the respective communities with the registered households and household members that emigrated after having lived in the village for an indefinite period of time. The persons who did not settle in the village, but who still are considered to be household members include four individuals above the age of 65 (3 women/1 men) and two individuals in their early 30’s (2 men). The older persons are relatives living in the village from which certain villagers (Simon and Andreas) came from originally before settling in *Okarongo*. The two younger men (all sons from Simon) went to another town looking for work before settling in *Okarongo*. The persons who had migrated away from the community include individuals of varying ages (20, 28, 48 and 57

respectively). Three of them migrated to larger towns looking for a living and one of whom (a 28 year old woman) resides in another location in order to look after cattle belonging to her household (Uakorora’s HH). From the 19 children attending to school, 12 of them were boys and 7 of them girls. In Namibia, school attendance is compulsory from the age of six to the age of sixteen when the 10th grade of basic education is normally reached. Selective courses based on learner-centred strategies for grade 11-12 can be visited on a voluntary basis when the children successfully complete the 10th grade. In *Okarongo* 14 children (5 girls/9 boys) of school age (between 6 and 16 years old) respectively were not attending school at the time of the census. The schoolchildren used to visit their respective households during the school vacations (from the 4th December until the 14th January, from the 29th April until the 26th May and from 25th August until the 8th September). The “de jure” members who migrated from *Okarongo* visit the community very rarely.

5.2 Population structure

Table 3. Population distributed in age groups

Age group	Female	Male	Total
0	9	11	20
5	5	10	15
10	3	7	10
15	8	7	15
20	4	7	11
25	7	3	10
30	1	5	6
35	3	1	4
40	0	1	1
45	4	1	5
50	0	0	0
55	1	2	3
60	1	0	1
65	4	3	7
70	0	0	0
75	0	0	0
80	1	0	1
85	0	0	0
90	0	0	0
95	0	0	0
100	1	0	1
Total	52	58	110

Table 3 shows the distribution of the population recorded through the census in age groups for *Okarongo*. The categories are distributed in ranges from 0 to 4, from 5 to 9, 10 to 14 and so on. The age category with the highest value is 0 to 4. That makes a total of 20 children below the age of five years. There were no persons recorded between the ages of 50 and 54 and between 70 and 79. The oldest individual registered was a 104 year old woman. The most notable differences in terms of gender within age groups can be observed for the categories 5 to 9, 10 to 14 were more men than women were registered, and the categories 25 to 29 and 45 to 49 were more women than men have been recorded.

Figure 5 (see below) visualizes the population structure of the research setting showing the percentages for both sexes. At the time of the census, the average of all age statements in *Okarongo* was approximately 23 years. The average’s standard deviation amount was approximately 20,5 and the median of the population’s age 17.

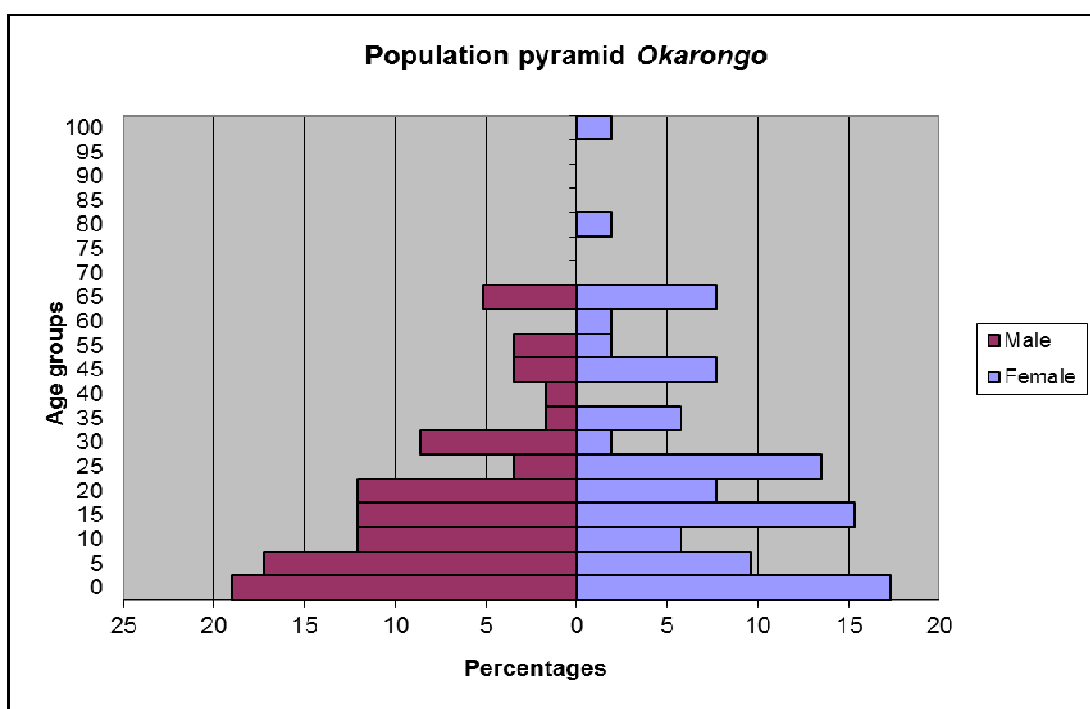


Figure 5. Population pyramid for *Okarongo*

5.3 HH sizes and ethnic composition

Through the Ethnographic Census carried out in the community, altogether three different ethnic groups were registered: Herero, Himba and Damara. At the time of the census, there were three Herero, two Damara, one Himba and two Damara/Herero households. At this, the Herero people constitute the majority of the population with 49 individuals (44,55%), the second largest group is the Damara with 38 (34,55%), and the Himba with 23 persons (20,91%) are in Table 4 the minority. In the two mixed households, both Heads married a Damara woman respectively. Table 4 shows the ethnic groups and their distribution in households for the community considering the members permanently living in the village, the schoolchildren and the persons living outside the settlement.

Table 4. Ethnic groups and their distribution in HHs considering their members permanently living in the village, the schoolchildren and the persons living outside *Okarongo*

HH from	Ethnic group	Living permanently in the village	School. Ch.	Living permanently outside the village	Total
Afrika	Damara	5	3	1	9
Jonas	Damara/Herero	7	3	0	10
Simon	Damara/Herero	10	3	7	20
Uakatora	Herero	14	7	2	23
Petrus	Himba	23	0	0	23
Mutoto	Herero	2	0	0	2
Josef	Herero	9	0	0	9
Total:		79	19	12	110

Considering the information depicted in the table, the following aspects can be underscored for the research setting:

- At the time of the census, the maximum amount of individuals per household with permanent residence was 23 (Petrus HH). The minimum amount of individuals per household with permanent residence in the community were two (Mutoto's household and Simon's household, the two newcomers in Okarongo).
- The average amount of individuals per household with permanent residence in the respective was 9,875 (standard deviation: 5,97). The maximum number of individuals belonging to a household living outside the community was seven (from Simon's household).
- The maximum number of children attending school belonging to a same household was seven (Ukatora's household).

The members of the households with permanent residence in the community sleep 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 for the cattle and one kraal for the goats and sheep. The areas where the huts and kraals are located are not clearly separated. 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).

5.4 Settlement years of the HHs and their reasons for migrating to the community

Table 5 shows the years in which the households assessed through the census arrived in the respective communities together with the corresponding reasons for their migration.

Table 5. HHs' year of arrival in *Okarongo* and the main reason for their settlement

HH from	Year of arrival in <i>Okarongo</i>	Main reason for migrating to <i>Okarongo</i>
Afrika	1999	Looking for grazing areas.
Jonas	2005	Because of the work at the NGO on site.
Simon	1992	Looking for grazing areas.
Uakatora	1999	Looking for grazing areas.
Petrus	1987	Looking for grazing areas.
Andreas	2003	Because of the work at the NGO on site.
Mutoto	2008 (July)	Because of the work at the NGO on site.
Josef	2008 (April)	Looking for grazing areas.

The information about the settling years in the community does not correspond necessarily to the years in which the village was established. 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 *Okarongo* was 21 years (Petrus household). The two newest households settled a few months before the research activities began (Mutoto's and Josef's households). On average, a household in *Okarongo* 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. This was the reason for the migration of five households in *Okarongo* (Afrika's, Simon's, Uakotora's, Petrus' and Josef's households respectively). According to the respective Heads of households, there were overgrazing problems in the villages where they had previously resided. Due to work reasons altogether three households (Jonas', Andreas' and Mutoto's households respectively) settled in *Okarongo*. They are employees of an NGO operating in several countries of the South African region in the field of wild animal conservation.³⁴ Before the NGO settled in the community, they and their households were living in another village where the organisation has a base. The NGO came to the settlement in 2003, because it is closer to the animals which are being monitored by the organization.

5.5 Political organisation

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*³⁵. The Act provides guidelines for the designation, election and recognition of traditional 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

³⁴ 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.

³⁵ 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.

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 to 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). At this, however, they are clearly subordinated to governmental institutions and regional councils (Article 16).

In *Okarongo*, there are some discrepancies concerning the person who lays claim to be the ruler of the community. As mentioned above, upon first arriving in *Okarongo*, I introduced myself to Simon who represented himself as the Headman of the community. 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 (Petrus household) having settled in the village before him (see above). Furthermore, three Heads of household (Jonas, Petrus and Andreas) assured me that there were people living in the area before Simon came, but that they had moved away a long time ago.³⁶ More important is that at least four Heads of household (Jonas, Uakatora, Petrus and Andreas) declared, that Simon 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, Uakatora and

³⁶ Andreas even saw Simon as a kind of intruder in the community. Andreas, 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).

Petrus demanded that I should not refer to Simon as the Headman, because he was only a common villager.³⁷

According to these informants, Simon proclaimed himself being the Headman 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 Simon 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 Simon was therefore a kind of impostor. It is also possible that the reason why he attributes the Headman 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 inclusive only for vanity.

5.6 General economic aspects

5.6.1 HH 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 6:

Table 6. Forms of income and amounts in Okarongo

Forms of income and amounts						
HH from	<i>amounts received through the sale of animals (last month)</i>	<i>reg. working salaries (monthly)</i>	<i>state pensions (monthly)</i>	<i>remittances (last month)</i>	<i>occasional jobs/ other activities (last month)</i>	Total
Afrika	-	1 x 1200 N\$ 1 x 650 N\$	3 x 450 N\$	(fruits or vegetables only irregularly)	-	3200 N\$

³⁷ In this paper, however, I do refer to him as the Headman in order to make him – as central figure in the conflict in *Okarongo* – easier to identify in the description and analysis of the conflict.

Table 6. (continued)

Forms of income and amounts						
HH from	<i>amounts received through the sale of animals (last month)</i>	<i>reg. working salaries (monthly)</i>	<i>state pensions (monthly)</i>	<i>remittances (last month)</i>	<i>occasional jobs/ other activities (last month)</i>	Total
Simon	2560 N\$ (7 goats)	-	1 x 450 N\$	(money (amount unknown), clothes, fruits and/ or vegetables only irregularly)	500 N\$ (borrowed) + 100 N\$ (selling tobacco)	3610 N\$
Uakatora	5000N\$ (2 cows) 300 N\$ (2 goats)	-	-	-	-	5300 N\$
Petrus	-	1 x 700 N\$	2 x 450 N\$	-	-	1600 N\$
Andreas	600 N\$ (2 goats)	1 x 700 N\$ 1 x 400 N\$	450 N\$	-	150 N\$ (baby-sitting)	2300 N\$
Mutoto	200 N\$ (1 goat)	1 x 600 N\$	-	-	-	800 N\$
Josef	200 N\$ (1 goat)	-	-	-	-	200 N\$

5.6.1.1 The sale of animals

In the research site, the animals (above all cattle, goats and sheep) constitute – in terms of Bourdieu (1983) – the villagers` financial capital.³⁸ 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.

³⁸ Donkeys and horses constitute for the villagers rather a physical capital in terms of Coleman (1983). The ownership of these animals facilitates mobility and transport. In the research setting, the donkeys (with the help of a donkey cart) are used for transporting wood, for travelling to the next town, for shopping or for bringing water.

The household of Petrus is a good example of why the information about the animals' sales should be read carefully. This household is the largest household in *Okarongo*, but it did not sale any animals the month before the interview. According to Petrus, he still had money from the sale of a cow some time ago. (The only household that declared explicitly not to sell animals was Afrika). This household receives money mostly through working salaries and state pensions. It is one of the smallest in terms of the number of members. An absolute independency on the income generated through the sale of animals was, however, difficult to imagine considering principally the employment circumstances in the villages (see below) and the few possibilities available for finding a job in the region. The official unemployment rate within the Sesfontein Constituency amounts to 20% for men and 34% for women, not taking into account the numbers of working hours or underemployment (cf. Republic of Namibia 2001: 29).

The money obtained from a selling action can last for several weeks, for instance the declaration of Petrus. The most common items purchased with this money (together with the money from the working salaries and state pensions if applicable) are basic consumption objects like corn meal, tea, bread, toiletries, cooking oil, sugar, soap for washing clothes, and/or tobacco. In some cases, parts of the money acquired also goes for supporting household members living outside the community. In cases when food is urgently needed and no purchaser can be found, the villagers also exchange animals (commonly a goat) for several tens of kilograms of corn meal, for example.

In the research site, animals have been sold for several urgent causes besides the household supply. In *Okarongo*, for example, Simon and Andreas declared explicitly having sold some animals principally, because they needed money for paying the forthcoming school expenditures in January. School fees amount approximately 1,200 N\$ yearly (400 N\$ per child for one trimester). In addition, school uniforms and other studying material such as books, notebooks, pencils etc. must also be afforded. Uakotora sold some animals, because he needed money in order to be able to attend a funeral and to visit a sick relative; both in different towns several hours drive away from the village.

Even if animals are not being sold regularly, they still play another important role: the meat of the animals constituted an important source of proteins in the villagers' alimentation. The nutrition in both communities is relatively monotonous. This is mainly due to financial reasons. According to the participants, they are only able to eat corn meal porridge, milk, bread and tea. Canned food such as pilchards, beef, sausages, fruits or vegetables are rarely purchased (fresh vegetables, fruits or meat are not available in the

shops of the respective communities). If a certain household does not sell its animals regularly, a goat or a sheep is slaughtered at least occasionally for household consumption.³⁹

5.6.1.2 Regular working salaries

It is common for the money from a working salary (also the money acquired through the state pensions) to be shared amongst household members. From the “de facto” population in *Okarongo*, only eight villagers (2 women and 6 men) earn a regular working salary (this makes 14,81% of the whole labour force of the registered population living permanently in the village between 16 and 60 years). Seven of them constitute the staff of the NGO’s base in the community and one individual (one of the women) works in another bigger section situated in another community. She is classified as a commuter since she declared herself to be living permanently in *Okarongo* and travelling to her household from her working place whenever possible. At the time of the census, the highest income in the village was 1,200 N\$ (earned by the commuter) and the lowest 400 N\$ (earned by the second woman, the wife of Andreas). Both were working as a cook and radio operator respectively. The men (Andreas, Jonas, Mutoto, one of Petru’s sons and one of Afrika’s grandsons), worked as animals trackers and earned between 600 and 700 N\$ at the time of the census. The average income recorded was 618,75N\$ (standard deviation: 224,290264). No member of Simon’s, Uakatora’s and Josef’s households was having a paying occupation (compare with Table 6).

5.6.1.3 State pensions

In Namibia, an Old Age Pension (OAP) is paid to everyone who reaches 60 years of age irrespective of past and current employment status and income as long as the person is a Namibian citizen or a permanent resident in Namibia. The pension has a monthly value of 450 N\$. (Levine/ van der Berg/ Yu 2009: 6) From all individuals registered through the census living permanently in *Okarongo*, altogether six persons (4 women, 2 men) receive an OAP. Only one person (one of Afrika’s grandsons) receives a Disability Pension (DP), which has the same value as the OAP and is paid to those persons from the age of 16 on, who have been diagnosed by a state doctor as being temporarily or permanently disabled (ibid.).⁴⁰

³⁹ The cows are slaughtered principally at important events such as funerals or marriages.

⁴⁰ The person in mention is a 20-year-old man, who is mentally handicapped.

5.6.1.4 Remittances

Remittances play a secondary role as an income strategy in *Okarongo*. Altogether two households receive some kind of support from household members living outside of the community (Afrika's and Simon's respectively; compare Table 6). However, this does not occur on a regular basis in any of the cases. The correspondent household members send food (vegetables, fruits, corn meal), money and/or clothes.

In the research setting, there are households that, in turn, support some of their members living outside the community. This is the case in three households (Simon's, Uakatora's and Andreas') in *Okarongo*. Simon the Headman, for example, supports two of its seven "de jure" household members (his mother 65 and grandmother 104 years old respectively). Apart from sending some tobacco, he also sporadically sends some money when animals have recently been sold. This is done as well by the other households.⁴¹

5.6.1.5 Occasional jobs and other activities

Finally, occasional jobs and/or other kinds of income generating activities are almost non-existent in *Okarongo*. Borrowing money, for example, is a seldom practice. All respondents answered negatively to the question when asked if they generally borrow monetary funds. Only Simon declared that he had borrowed money (500 N\$) from a friend living outside the community.

He was also the only person to declare having sold home-grown objects. This is due to the general seldom practice of cultivating gardens in the community (hereto more lately). The Headman occasionally gives tobacco to his grandmother and mother, who live in another village, for the purpose of selling. In exchange, he then receives a part of the earnings. A month before the interview, Simon earned 100 N\$ through this activity.

The only person who was carrying out an occasional job at the time of the census was one of Andreas' daughters. She helped to take care of the children in Jonas' household and earned 150 N\$.

5.6.1.6 Subsistence agriculture

The cultivation of gardens is a very limited practice in *Okarongo*. The only person cultivating a garden was Simon. The garden is located in the campsite and it is irrigated by transporting 25-liter containers by car from the water point. For this reason, the Headman said he is only able to cultivate a small part of it primarily for his own subsistence. He used

⁴¹ Uakatora supports only two de jure household members (his 2nd wife and one of his daughters) as well as Petrus (his parents).

to cultivate pumpkins, carrots, tobacco, papaya, tomatoes, watermelons, sweet potatoes and cabbage. However, he has lately only cultivated tobacco due to the high cost of gasoline for the car. Other households of *Okarongo* (all except for Mutoto's and Josef's) have gardens in other communities. They also are not actively cultivated due to water scarcity and irrigation problems in the sites where they are located.

5.6.2 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 two times daily), collecting firewood for cooking (as necessary), cooking and taking care of children. If time allows they also seam clothing, make butter, visit other women or just have a siesta. Concerning water issues, the women are usually the ones to fetch the drinking water for the household. The Heads of households and young men (inclusive those which don't attend to school), on the other hand, are usually the ones to bring the cattle and goats to graze and to drink water at natural water fountains or at the water point. It is also the task of men – as already mentioned – 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.

5.6.3 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 on the owner. Although working salaries or state pensions are an important means of income for certain households, they are not seen as a determining criteria for the rank of a person as wealthy or impoverished.

Figure 6 shows spatially how the participants of the Wealth Ranking positioned the households represented in cards over the board.⁴²

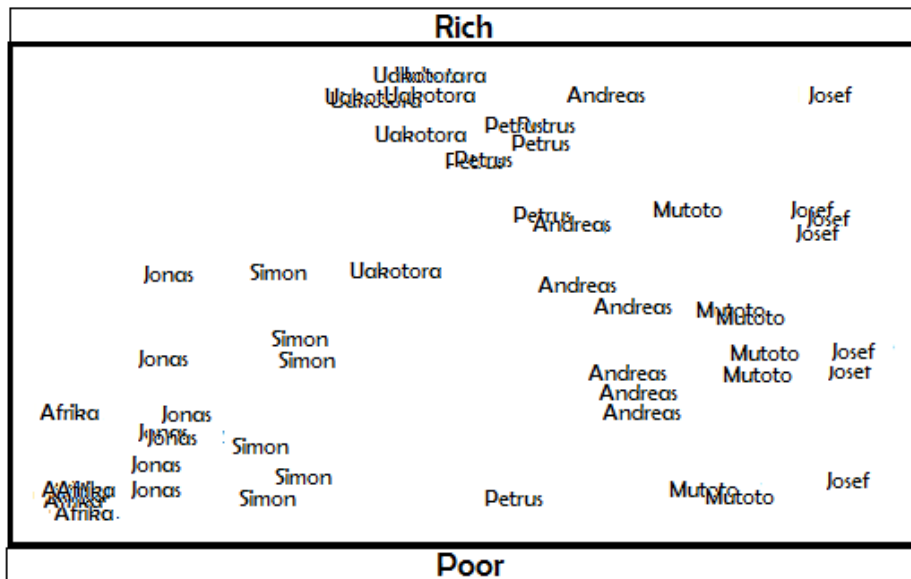


Figure 6. Joined results of the Wealth Ranking in Okarongo

As mentioned in the applied methods section, 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 was Uakotora's, followed by Petrus' household.⁴³ Afrika's household, in contrast, is perceived clearly as the poorest household in the settlement. Jonas' household is perceived to be wealthier than Afrika's household, and Simon's household is perceived to be similarly wealthy as Afrika's household, however, these two are still considered to be poor. Andreas' household, Mutoto's household and Josef's household 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

⁴² 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. The outcomes of each separated interview were digitalized with a graphic program and put over different planes. Figure 6 shows these planes grouped on each other.

⁴³ In Figure 6, it can be observed that Petrus' household was perceived as poor by one participant. This participant was the oldest son of the Petrus. 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 Andreas' instead, a household where two persons were having a wage.

for every household.⁴⁴ Uakotora’s household, the richest in the community according to Figure 6, owns more animals than the others, especially in relation with the number of cattle and goats. Afrikas’ household, the poorest in the community, does not own any cattle and has fewer animals than his neighbours (see Table 7).

Table 7. Ranking positions vs. number of animals assessed through the census

Wealth Ranking Position (HH from)	Number of animals assessed through the census					Total
	<i>Cattle</i>	<i>Goats</i>	<i>Sheep</i>	<i>Donkeys</i>	<i>Horses</i>	
Uakotora (“richest”)	26	63	11	0	0	100
Petrus (“2 nd richest”)	18	14	10	2	2	46
Andreas, Mutoto, Josef (“average”)	6, 7, 9	30, 23, 40	6, 11, 7	3, 4, 7	1, 0, 0	76, 45, 73
Jonas, Simon (“poor”)	10, 3	26, 23	2, 9	4, 5	0	42, 45
Afrika (“poorest”)	0	29	0	7	0	36

⁴⁴ The participants could only rank their neighbors based on visual estimations. Rough number appraisals, however, could not be carried out by the interviewees.

6 General water issues

6.1 Infrastructure

At the time of the research activities in *Okarongo*, 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 7 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 Simon affirms to be his own (“W.P.2” in Figure 7 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 Simon (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.⁴⁵ The natural water fountain located ca. 1,5km away (“Nat. W.P.1” in Figure 7 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 m² to 4 m²); this natural water spring is mainly used for watering the cattle.⁴⁶

⁴⁵ 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.

⁴⁶ The water points in the village have not been depicted in Figure 7, in order to keep the research setting unidentifiable.

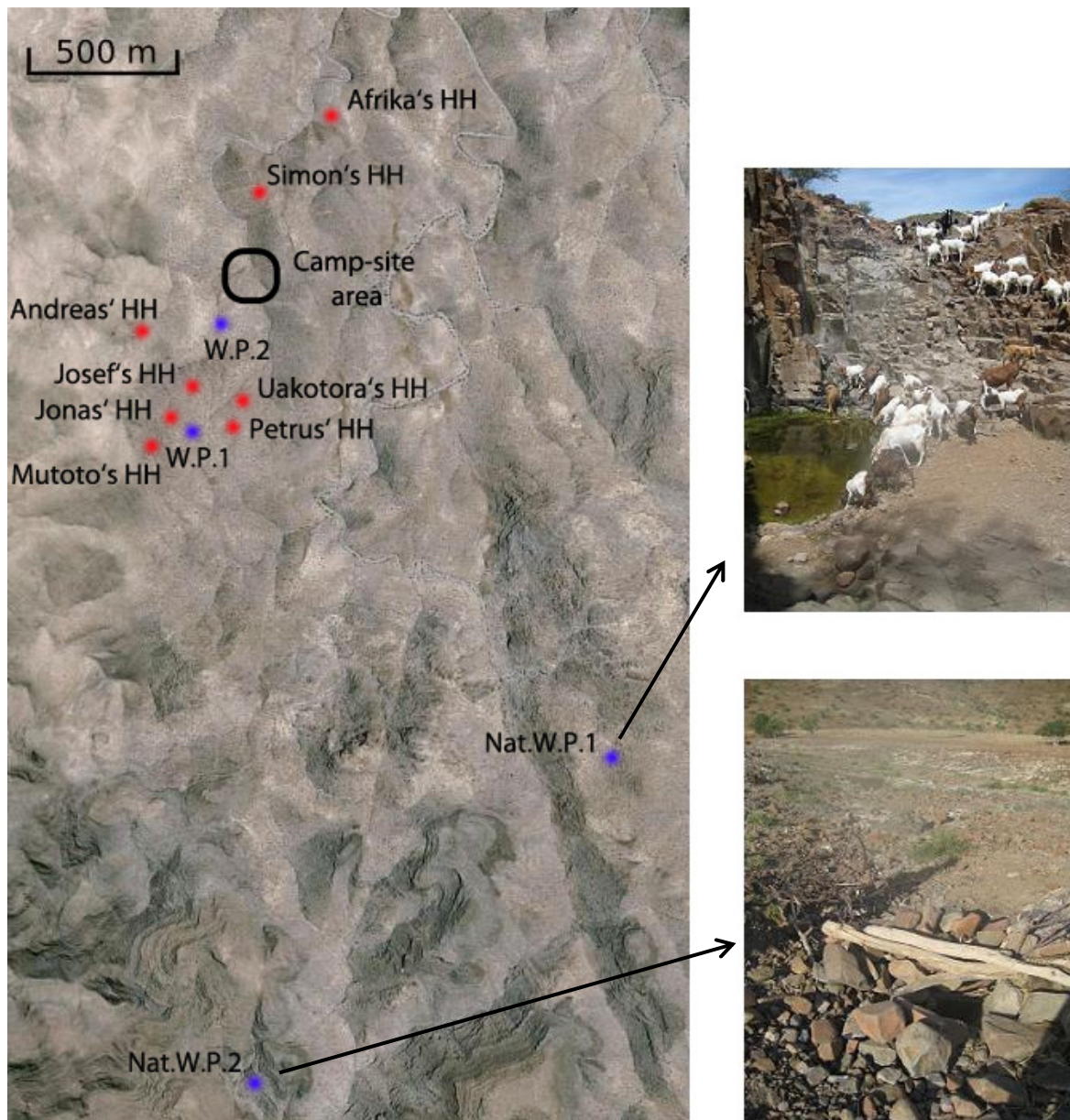


Figure 7. Map of *Okarongo* and location of natural water fountains

6.2 Usage

6.2.1 Human consumption

In Table 8 the water fetching patterns of the community according to the declarations of the participants are depicted.

Table 8. Water fetching patterns in *Okarongo*

HH from	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
Afrika	5	Wife Grandson	67 31	By foot Donkey-cart	25 liter 200 to 300 liter	2 x day Only if not working
Jonas	7	Wife	26	By foot	25 liter	2 x day

Table 8. (continued)

HH from	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
Simon	10	(Head) Wife Son	58 48 22	Car/ Donkey-cart By foot Donkey-cart	200 to 300 liter 25 liter 200 to 300 liter	Sporadically 2 x day Sporadically
Uakatora	14	Wife Sister Children	45 45 5-20	By foot By foot By foot	25 liter 25 liter as much as they can	2 x day 2 x day 1 x day
Petrus	23	Wife Daughter Children	64 39 5-20	By foot By foot By foot	25 liter 25 liter as much as they can	2 x day 2 x day 1 x day
Andreas	9	Uncle	39	Donkey-cart	200 to 300 liter	1 x week
Mutoto	2	Wife	27	By foot	25 liter	2 x day
Josef	9	Children	5-17	By feet	as much as they can	2 or 3 x day

One can estimate that almost every household in *Okarongo* 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. In *Okarongo*, 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.

6.2.2 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 water point in the respective community 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 Uakatora (the richest villager in *Okarongo*) 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 *Okarongo*, 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.

6.2.3 Gardening

Since the cultivation of gardens in the village is very limited, no substantial quantities of water is used for this activity. Simon (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.

6.2.4 Other (the campsite)

The quantity of water used for the campsite situated in *Okarongo* 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 transport the water to the campsite's 1000 liter container. 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. Important is 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 *Okarongo*). Therefore, the machine pump is connected to a pipe coming from the underground at the water point.

6.3 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 Petrus, who was the first person to approach the organisation, and Simon, 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 Simon'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 Petrus. 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 Andreas and a son of Petrus). After the installation of both hand pumps, however, the persons that had approached the humanitarian organisation (Petrus and Simon) 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 9 below).⁴⁷

⁴⁷ The persons depicted in Table 9 were chosen for to collect information regarding the composition of the water committee as they were themselves part of the same.

Table 9. Members of the water committee and their functions according to the Headman, and three other water committee members in Okarongo

Alleged member	Function within the W.C.	Informants and their corresponded declarations		
		Simon (Headman)	Organizer & Treasurer 1* (Adult daughter of Andreas and Joan, the wife of Afrika)	Secretary 2 (Adult son of Petrus)
Simon	Chairman	•	•	•
Afrika's wife, Joan	Treasurer 1		•	•
Uakotora	Treasurer 2		•	•
Simon's wife, Ngunoe	Treasurer (?)	•		
One of Simon's adult daughters	Secretary 1	•	•	•
One of Petrus' adult sons	Secretary 2	•	•	•
Another son of Petrus	Organizer 1	•	•	•
One of Andreas' adult daughters	Organizer 2	•	•	•

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

According to the Organizer, the persons for the positions “Treasurer1” and “Treasurer2” in the table were democratically elected by the community within the framework of the humanitarian organization’s intervention, while some time later, Simon’s wife, Ngunoe, 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, Simon 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 Simon’s wife⁴⁸. The reasons for this, as described more elaborately in section 7, 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 (one of Petrus’ adult sons), 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.

⁴⁸ According to him, his wife did not try to collect money anymore because no one wanted to cooperate.

- 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 Simon the Headman. According to him, the members of the humanitarian organisation gave him personally a list of rules exclusively for his water point and that he announced them to the community. However, in a later interview conducted with one of his daughters and at the same time secretary of the water point, she claimed her father wrote the regulations himself. Simon, 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 (one adult son of Petrus – the later having 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 (one of Andreas’ adult daughters and the wife of Afrika, 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 Simon 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 information 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. More probably 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. Simon assured that he was in possession of these documents somewhere in his household. Nevertheless, when 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 (Simon the Headman), one of the organizers (a daughter of the Andreas) one of the treasurers (the wife of Afrika) and one of the secretaries (one of Petrus' adult sons). Table 10 shows the outcomes of the respective interviews.

Table 10. Rules for the water management in Okarongo

Rule	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)
From 8 a.m. to 12 p.m. people should fetch water or 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.

As it can be observed in the table, there were some dissimilarities between the declarations of the interviewees. At this, 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 amounts 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 *Okarongo* 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 for inquiring it more in detail and understand its different aspects.

7 The water conflict in *Okarongo*

A few days after our arrival in *Okarongo*, we ascertained that the water problems in the community were more complex and serious than earlier recorded during our first 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 *Okarongo*.

7.1 Some antecedents

Considering the history of *Okarongo*, the first serious incident related with water issues seemed to be a fight between Petrus and Simon in the year 2002. Before this incident, Petrus 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.⁴⁹ Petrus 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 Simon already existed in the village. This, in turn, was the reason why Petrus did not want to ask the Headman for permission to use it: he did not want to be dependent on him.⁵⁰ Therefore, he decided to begin digging an additional water hole closer to his household. There were two problems with his choice of action. First, he did not consult with Simon and second, the water hole he was digging was located upstream on the same river where the Simons water point is situated.

When Petrus began with the digging, Simon was absent selling some of his animals in Sesfontein (an activity that can take several weeks). Petrus approached a humanitarian

⁴⁹ 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 Petrus household, other two were using the natural fountains for their animals and for human consumption. These were Uakatora's household and another household that moved sometime in 2006.

⁵⁰ Simon was already sharing the water hole with Afrika: the household of his wife's sister.

organisation for technical support since he wanted to install a hand pump over the water hole. Sometime later, the humanitarian workers came to *Okarongo*. However, Simon prevented a meeting between the two parties. According to Petrus, 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 Simon and asked him for Petrus. It was then that Simon came to know about his co-villager's intentions of constructing a water point. Therefore, so Petrus 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. Simon then forbade him to finish the water hole he was digging with the argument that his water hole would dry up as a consequence. In the discussion, Petrus lost his temper because of Simon'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 Petrus began by punching the Headman in the face.

A few days after the incident, so Uakatora, a meeting with Herero Headmen called by Simon himself, took place in the village from which he originates (42 km away from *Okarongo*). 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: Afrika, Simon, Petrus, Uakatora and the Head of the household that left the village in 2006. Nevertheless, the tensions appeared to have remained, because the households that were using the natural fountains (Uakatora's, Petrus' and the household which moved from *Okarongo*) 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 7 above. In contrast to the further rather individualistic enterprise of Petrus, this time the construction of the water point was a joint venture between him, Uakatora and the Head of the household which moved from *Okarongo*, whereby Uakatora was the one, who motivated the other two men to dig the water hole. In this undertaking, the humanitarian organisation came into play again. Petrus 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, Simon 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.

7.2 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 Simon 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 7 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 Uakatora, 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, Uakatora’s together with Petrus’ and Jonas’ households (the later 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 Uakatora, 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 Simon for permission in order to fetch water at his water point. According to Petrus, Simon was not very enthusiastic about this and he only tolerated it reluctantly.

Nevertheless, in some cases Simon seemed not to tolerate it at all. The members of Mutoto’s household 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).⁵¹ Moreover, the Jonas declared that the Headman used to throw stones at the animals if they came too close to his water point. The sons of Uakatora 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 Simon was in fact fulfilling his threat of locking the hand pump, was, however, difficult to prove. On the one hand, Uakatora confirmed that Simon 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 Simon 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 Uakatora declared), in turn, it would thus be a more serious act. For, Simon would be denying his co-villagers the access to water arbitrarily in times of need.

7.3 The overgrazing problems in the village and the water conflict

According to all Heads of household, there are acute overgrazing problems around the water point and the immediate surroundings of the village. 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

⁵¹ Nevertheless, they were using – like the other households – the water hole when water scarcity at the natural water fountains was prevailing.

practiced by Uakatora's, Petrus', Jonas' and Mutoto's households respectively, whereby they support each other in this task, as already mentioned.⁵² Afrika's, Andreas' and Simon's households are situated – in comparison to the other households – very far away from the natural fountains (compare Figure 7 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 Andreas. According to the later, his wife Elizabeth wanted to take the animals to the area where Simon'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.⁵³ She is said to have asked Simon 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, Andreas continued, she took the animals in the direction of Simon's herd and the next day the hand pump was indeed locked. According to this, it seems that Simon 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 Simon locking the hand pump. Once, he admitted openly 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 my interpreter: "if I don't lock the hand pump, there will be no grazes and the animals will die". Here, assuming that Simon really locks the hand pump for this reason,⁵⁴ it is comprehensible that he, as livestock owner, could have the interest (like surely the other households in *Okarongo* as well) of not having to graze far away from the village since this implies covering long walking distances and maybe also the danger of encountering wild

⁵² Josef's household 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 for the NGO), 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.

⁵³ The interviewee (Andreas) 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.

⁵⁴ It could not be expected that Simon only tells the truth considering the inconsistencies in relation with his first reason for locking the hand pump (see previous section).

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.

7.4 The Headman's claims of ownership over the W.P. and its contradictions

There are some contradictions within Simon's claims of ownership over the water point. First, his 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.

During the interviews, the Headman assured that he was the owner of the water point, because he was the only one, who dug it.⁵⁵ Nevertheless, Jonas affirmed having helped Simon 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 Andreas could not confirm that Jonas 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 Jonas and Andreas respectively. They only knew that Simon was the only one who had dug the hole. Only one grandson from Afrika confirmed that the Headman was not the only one who dug the waterhole. His father, who passed away some years ago, helped Simon with its construction.

During an interview with Simon concerning the ownership of the water point, he showed me 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, I was “hanging out” (see Russell 2006: 368f) at the water point. There were several young people playing cards and talking with one another. Suddenly, a young man with whom I played soccer in the village called me and showed me a picture. He took it from a notebook from Simon's adolescent daughter while the young girl was talking with other girls. The image was similar to the pictures the Headman showed me the day of the

⁵⁵ Simon 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”, I did not refer to him in front of the governmental authority neither with his name nor with his title. I asked the official if he knew of any ownership documents concerning the water point in *Okarongo*.

interview with a man visible digging a hole. I asked the young man who was the man in the photograph and he told me that he was the deceased father of the grandson of Afrika. 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. Jonas, 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 Simon'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 Petrus. This, however, seemed not to be expected by Simon from the beginning. As noted above, he 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 *Okarongo*. Here, the community as a whole was asked to cooperate and 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.⁵⁶

7.5 The money contributions problem

According to three participants, the villagers' unwillingness to give Simon 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

⁵⁶ As this subsection has shown, the ownership of the water point is an unclear issue. Despite of this, I will still keep of referring to "W.P.2" as if it were Simon's water point, so the reader can easily identify to which water point I am alluding.

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 Simon could be determined through the interviews. Petrus, for example, made clear his reason for mistrusting the Headman was on the basis of an actual incident with him. He declared that Simon sold a bag full of shoes that had been donated to the community by the South African students, who had voluntarily come to help in the campsite. 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, Petrus justifies his unwillingness to give Simon money for the hand pump, because he felt he is also not cooperating with the community. To this, he added that every time Simon 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 Petrus) it seemed suspicious to give the Headman money, because there are democratically elected treasurers (the wife of Afrika and Uakotora) in charge of that task. Afrika 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. Uakotora said once, in turn, that as Simon had already closed the hand pump for four days, he did not want to cooperate with him in any way. Furthermore, Jonas believed that the Headman is even deceiving the community when he asks for money. He said that Simon removed parts of the hand pump furtively and 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 Jonas to not cooperate with 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 Simon for the water usage, he didn’t see any necessity in giving him additional money. He explained that the 350N\$ are for the dromedaries and for the complete NGO’s staff (from which Jonas is a member) settled in the in the community.⁵⁷ The same reason was also given by Andreas and the grandson from Afrika, both workers of the NGO.⁵⁸

⁵⁷ The dromedaries are used to track and monitor the wild animals the NGO is said to protect.

⁵⁸ It is important to mention that Andreas believes that Simon 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.

Simon himself confirmed this arrangement, but he added that there were some problems. According to him, the NGO was not paying 350N\$, 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. Andreas 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.

7.6 The role of the tourist's camp-site in the water conflict

According to Presilla, the wife of Petrus, the Headman locked the hand pump because of damages caused by the villager's cattle in his campsite. Simon, 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.

Presilla 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 Simon'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 Uakotora, cattle

from Jonas', Andreas', Petrus' and also including his had come into the campsite. Simon, 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 Uakatora had given the Headman a goat in compensation for the damages caused to the campsite by his animals; other households, according to Uakatora himself, have as yet not provided Simon with compensation.

However, additional information in relation with the campsite could provide insight into the reasons why the villagers had left Simon 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 Simon that he would give a part of his profit to the community, because the campsite was in an open area according to Petrus. Joan, the wife of Afrika 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, Simon has not kept the promise. Simon said, however, that the campsite had never run well and that the garden did not produce enough vegetables and fruits. In addition, Jonas declared that the NGO in the village was even supporting Simon 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 Aline, the wife of Uakatora, 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, Simon 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.⁵⁹ Hence, if the villagers do not receive any benefits from the campsite, whereas in order to run it their access to water is 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.

⁵⁹ The machine pump Simon was using was borrowed from another Headman.

7.7 The role of the NGO

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

According to Jonas and Emma, 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, Jonas added that Simon locked the hand pump usually when he and his work-colleagues 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. Afterwards, he continued, the action almost culminated into a fight with Simon 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: Jonas', Andreas' and Mutoto's households) 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 Andreas. He said that Simon 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.

7.8 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 Elizabeth, the wife of Andreas, 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 Andreas with his wife Elizabeth (so an adult daughter of Andreas). Nevertheless, none of the participants asked about this matter (Andreas, Elizabeth, and his daughter) wanted to explain the backgrounds, 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.

7.9 Witchcraft

Within the framework of the water conflict in *Okarongo*, 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 *Okarongo*. The Headman and his wife assured me 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 to me 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, Simon 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,

my interpreter advised me that they surely know something, but that they refused to tell me 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 Simon could have in speaking of his son being bewitched. At first sight, if he had in fact pointed to a certain person being the culprit of his son's illness, it is arguable to what extent 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 latter 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 Simon achieves an advantage in the conflict indeed.⁶⁰

7.10 The external actors

An important governmental official settled in Sesfontein has been approached three times by members of the community in order to denounce Simon's arbitrary actions. The humanitarian organisation (which donated the hand pumps) was approached for this same reason as well, but only one time.⁶¹ According to Andreas, 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 *Okarongo* is quite far away from Sesfontein (approximately 62 km) and the official did not have enough petrol to reach the community, according to Andreas. At the two meetings, the official is said to have warned Simon that locking the hand pump was an illegal action.⁶² 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 Andreas added, Simon 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, Simon is said to have locked the hand pump again, but only two or three times (so

⁶⁰ At the time of my stay, they approached a "witch-doctor" in order to find out who was the perpetrator. Nevertheless, the traditional healer could not tell them who, as he had to come to the village from a far in order to carry out the procedure on-site (they approached him in the village from which Simon originates).

⁶¹ The councillor was approached two times by Andreas and one time by Petrus, who contacted the humanitarian organisation as well.

⁶² This is implied in the Communal Land Reform Act No. 5 from 2002.

Andreas). Other external actors such as members of other water committees in other villages have yet not been approached by the community members of *Okarongo* 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 *Okarongo*.⁶³

For his part, Simon 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 Andreas, 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 Andreas continued, the villagers objected by saying that the proposed amount of money is too high for a contribution. To this, Simon's peer responded saying if they do not like the rules, they must move out of the community. Nonetheless, no household has left the community.

However, Simon has also tried to gain an advantage in the water conflict through the legal system. After having concluded my stay in *Okarongo*, I came to know during an interview with a governmental official in Sesfontein, that Simon 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 suggested such to me). According to the official, the different opinions of the traditional authorities have prevented – at least for the moment – that Simon obtained the ownership over them. Some Headmen from the same village from which Simon originates, so 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, I could understand why Simon 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.⁶⁴ 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

⁶³ The participants were one adult son of Petrus (Secretary), one adult daughter from Andreas (Organiser) and Joan, the wife of Afrika (Treasurer).

⁶⁴ See Republic of Namibia (2002).

villagers' means of exerting pressure over the Headman could be reduced or may even be completely neutralised.

7.11 Positions and social interactions within the water conflict

With most of the households, the Conflict Mapping has been accomplished the participants described the conflict by arranging cards showing who is having problems with whom. It can be noticed that Simon was quite isolated within the water conflict (see Figure 8 below).

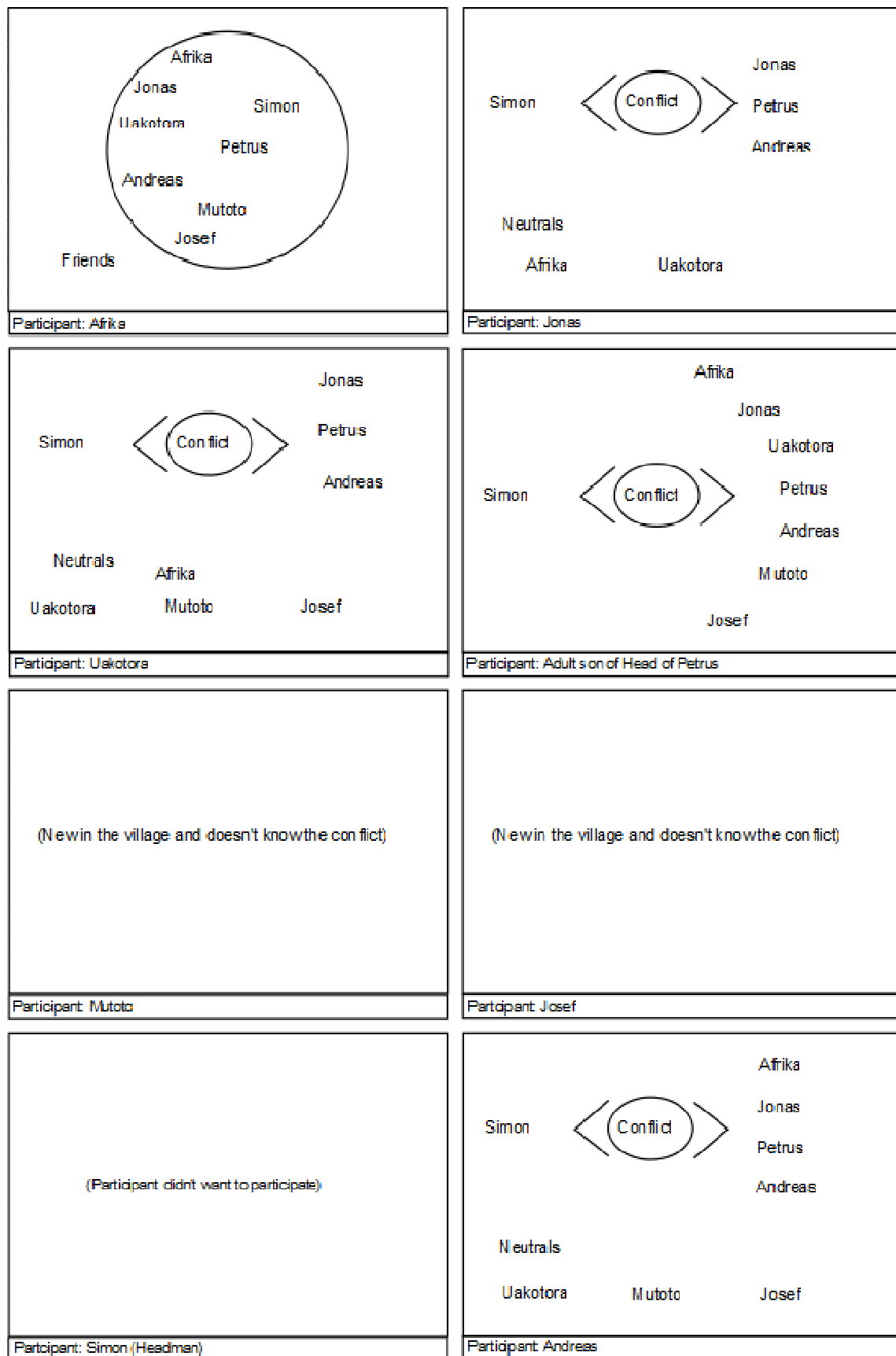


Figure 8. Visualizations of the conflict according to each Head of HH in Okarongo through the Conflict Mapping

Mutoto and Josef, declared (generally) that they do not know if there is a water conflict in the village, because they are relatively new in the community. For this reason, both of them said that they could not participate in this interview. Additionally, Simon, who is one of the central figures in the conflict, refused without any further explanation to take part in the inquiry.

A remarkable difference between the charts depicted in the figure above constitutes the information given by Afrika. He always declared in several interviews during the research activities that there is no water related conflict in *Okarongo*. During the interviews using the Conflict Mapping, he stated that there is no conflict in the community and that everyone in the village has a friendly relationship to one another. In his case, as already mentioned, I believe that he rather wanted to avoid any accusations about anyone either in order to prevent getting somehow involved in the conflict or just because he did not want to talk badly of anyone. The presumption that he could not have known anything about the conflict is less probable as other members of his household did in fact admit to know about the quarrels in the community.

The other partakers, who participated in this inquiry (Jonas, Uakatora, Petrus and Andreas) displayed Simon as an isolated person with whom everyone had trouble with within the water conflict.⁶⁵ However, Jonas, Uakatora and Andreas saw the conflict more differentiated than the 29-year-old son of Petrus⁶⁶, who declared that if there was any water related problem, the Headman always stood alone against all other households in the village. On the contrary, the other mentioned participants saw certain Heads of household as having a neutral position within the conflict, whereas neutrality was defined differently by them. Andreas, for example, said that his congener Uakatora remains neutral, because he does not contradict the Headman when he puts a lock on the hand pump. According to him, Mutoto and Josef also remain neutral in the conflict due to the fact that they have only recently settled in the community. Uakatora, considered himself to be neutral, because he – in contrast to Jonas, Petrus and Andreas – has paid the Headman a goat for the damages caused by his animals in the campsite. Mutoto and Josef were said (by Uakatora) to be neutral, because they are also new in the village and Afrika, because he does not have any cattle that could cause damages in the camping area. Jonas declared that Afrika and

⁶⁵ Compare the respective charts in Figure 8.

⁶⁶ As his father Petrus was absent for many days and the date of his returning was unforeseeable, the interview was carried out with him.

Uakotora are neutral, because they do not resent Simon for locking the hand pump and he affirmed as well that Mutoto and Josef are not part of the water conflict, because they are new to the area.

As depicted in the charts displayed above, Simon and a number of Heads of household in the village are conflicted. The respective participants declared the following reasons as the principal causes of the conflict among them: The main reason for the conflict between the Headman and Jonas, according to the latter, is the fact that he himself once broke the lock which was keeping the hand pump unusable for two days. After this, Simon was said to have got quite annoyed. The principal reason for the conflict between him and Andreas (so the further information of Jonas) was said to be that the latter (Andreas) was the first one to have approached a governmental official informing him that Simon was locking the hand pump. The conflict between the Headman and Petrus (so the last information of Jonas in the interview) was said to be the construction of another water point.

According to Uakotora, as mentioned above, the main reason for the conflict between the Headman and the Heads of household depicted is the fact that they did not give the Headman any compensation for the damages caused by their respective livestock in the campsite.

For the son of Petrus, however, the main reason for the conflict between the Headman and the other Heads of household is the fact that the hand pump belongs to the whole community although Simon has affirmed that the water hole is his property alone. This statement was also declared by Andreas, but he stated that the conflict was between Simon and Afrika, Jonas, Petrus and his own household as the other Heads of household remained neutral.

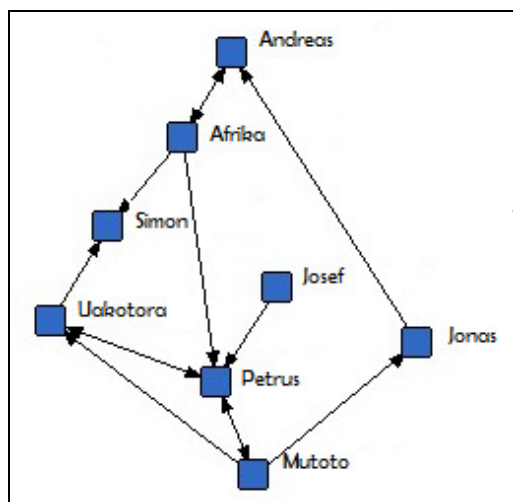


Figure 9. Visiting habits within the Heads of HH

In addition to the previous remarks about what has been the main reasons for the conflict and who is belonging to which party of the conflict, it is worthwhile to mention that the Headman seems not only to stand alone in the water conflict, but also – up to a certain degree – in specific social issues. Considering the outcomes of the fourth question of the group Network Analysis for the Heads of household (*Which person in this village do you visit for a chat?*), it could be determined that Simon did not visit anyone in the community. In the visualisation of the outcomes of this methodological tool in Figure 9 no arrows are going away from the node “Simon”. The two villagers that declared visiting him occasionally were Afrika and Uakotora. The first one declared, however, that he approached the Headman only to ask him about a 81 year-old woman living in his household (the aunt of Simon’s wife), because she once was married with his uncle who is now deceased. Uakotora, for his part, declared that he only visited the Headman if he wants to get information about funerals that are taking place outside the community.⁶⁷ The persons who do not visit the Headman correspond to all those who either have a conflict with him (Jonas, Petrus, Andreas) or those who are new to the village (Mutoto and Josef). The two villagers who declared visiting him occasionally (Afrika and Uakotora) were regarded as neutral in the water conflict.

The rest of the Heads of household visit other congeners/ villagers sporadically not only for functional reasons, but also for socialising, even if the visits are not always reciprocal. To the specific question, why they visit the persons they mentioned, the most common answer was because of kinship or friendship (the latter was only mentioned by Mutoto referring to Jonas, by Afrika referring to Uakotora and by Uakotora and Petrus in reference to each other). Within the village, there are several linkages between the households in terms of kinship. Above all, several Heads of household have consanguine

⁶⁷ According to several conversations with different villagers, attending a funeral involves more than the opportunity to offer personally condolences and support to the close relatives of the deceased. It is the occasion to meet relatives and friends, to refresh and upheld important relationships, to inform oneself of the situation of other places and people, to talk about business and to negotiate about the heritage.

relationships to members of other households.⁶⁸ The Headman, in contrast, is the only Head of household who has relationships to other members of other households only through affine relationships.⁶⁹

Nevertheless, these specific relationships made it possible for Simon to count on help to castrate a young bull. For, he only has one adult son living permanently in the community; he is in need of additional persons in order to carry out the mentioned procedure. For this, however, he (node “Simon” in Figure 10 below) could count on the father of his grandson – one of the adult sons of Petrus. Although he and Simon’s daughter are not yet married, the young man is often at Simon’s household and helps him with other activities such as the sale of goats.⁷⁰

Besides him, so the Headman, he asks Uakatora if he can let his sons help him to hold the young bull down while he carries out the castration. In this case, Simon does not have any affine relationship with Uakatora’s household. However, as mentioned above, Uakatora is neutral in the conflict and is one of the few persons who visit Simon. In addition, it is

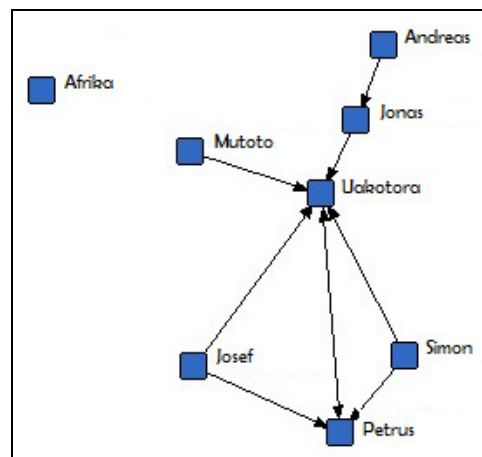


Figure 10. Social support (help to castrate a young bull) within the Heads of HH of Okarongo

worthwhile to consider the possibility that Uakatora – as the richest man in the community and at the same time the most dependent villager on the Headman’s water point in times of drought – could have let his sons help Simon in order to demonstrate cooperation and so to ascertain for his household the access to water. Uakatora and Petrus respectively, are not only asked by Simon for help, but also by other Heads of household. The reason for this is that both men have several adult sons living permanently in the community. Uakatora’s and Petrus’ households used to support one another in castrating bulls. Afrika’s household, the only one owning only goats, is obviously not reliant on others for the issue in mention.⁷¹ However, it may be relative to affirm that the Headman is fully dependent on

⁶⁸ Uakatora is the father of the wives of Jonas and Josef respectively. Afrika is the father of the wife of Andreas. The later, in turn, is the older brother of Jonas. Petrus is the older brother of Josef and Mutoto’s uncle.

⁶⁹ Simon has an affine relationship to Petrus: his daughter and one of the sons of the Petrus have a one year-old baby; to Afrika’s household because Ngunoe, his wife, is the sister of Afrika’s wife, Joanand to Andreas because Ngunoe is the aunt of Andreas’ wife, Elizabeth.

⁷⁰ During fieldwork, both of them transported five goats to Sesfontein in order to sell them.

⁷¹ The castration of a goat can be carried out by one person.

the help of the above-mentioned households. Although help would be indeed welcome, it cannot be ruled out that he could arrange to castrate a young bull only with the help of his son. Moreover, it is important to consider that at the time of the fieldwork he – according to his own statements – owned only three heads of cattle, which could imply that the castration procedure is only seldom necessary.

A social aspect from which the Headman and his household seem to be isolated is within the sharing structures of sugar within the community. The outcomes of the second question of the Group Network Analysis for female participants (*If you were out of sugar, which person(s) in this village would you ask to give you some?*) show that Simon's wife, Ngunoe, is the only woman who does not ask anyone for sugar when she is in need (see Figure 11 below). Her explanation was that as no one in the community has sugar, she does not ask for it anymore. One cannot be assured if other persons denied her the sugar or if

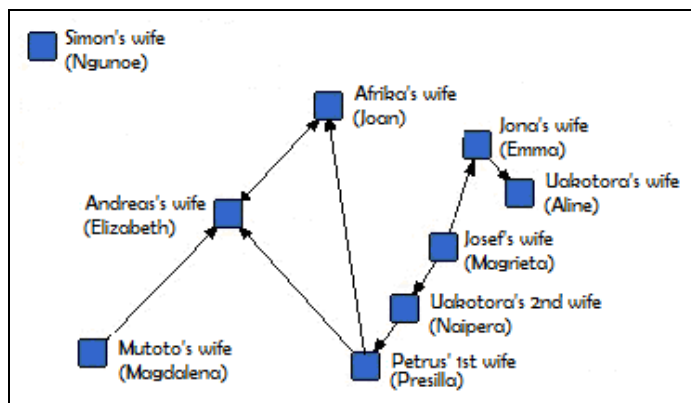


Figure 11. Structures of sharing (sugar) among the households in Okarongo

they really did not have some. It is, however, a fact that indeed other women ask other households for sugar – a sign that not all households do not have any. Interesting is that her sister Joan (Afrika's wife) and her niece Elizabeth (the wife of Andreas) – the first one is the mother of the second one – seem to be asked commonly by other persons who are not related to them through kinship (like Magdalena, Mutoto's wife and Presilla, the 1st wife of Petrus). Furthermore, the only reciprocal relationship in this matter exists between the concerned persons. Although the Headman's household is located between the residencies of both of these households. Here it is important to consider that private problems exist between Elizabeth (the wife of Andreas) and Ngunoe (the Headman's wife). These problems could not be assessed in detail. However, they do have an impact on the water conflict, as already mentioned. Within the context of the sharing structures, it is possible that the concerned private issues or conflicts could also have at least a latent repercussion; this although Joan and Elizabeth only said that they did not ask Ngunoe for sugar, because she never has any. It would be relative to conclude that the Headman's household is disadvantaged, because other households seem to deny his wife sugar. However, it is important to take into consideration that the wife of the Headman freely admitted that she prefers driving with

her husband (who owns a car) to the next shop rather than relying on other households in the community. Here, like in the issue of castrating bulls, the Headman and his household are not totally dependent on other neighbours. They are relatively free to act as they please and are thus not in a strong dependence relationship with anyone.

On the contrary, it seems that other villagers are rather dependent on Simon in matters of transport possibilities. As can be recognised in Figure 12 (see below), apart from his wife, five other women from different households ask him for a lift to go to Sesfontein. The outcomes belong to the first question of the group Network Analysis for female participants (*If you need transport to go to Sesfontein, which person in this village do you ask for a lift?*). Although some of the women such as Emma, the wife of Jonas and Joan, the wife of Afrika mentioned

other vehicle owners⁷² as a possibility to take a lift, they said that they ask Simon more often than the others because he, in contrast to the others, does not leave the community for several days or weeks. Thus during certain periods of time,

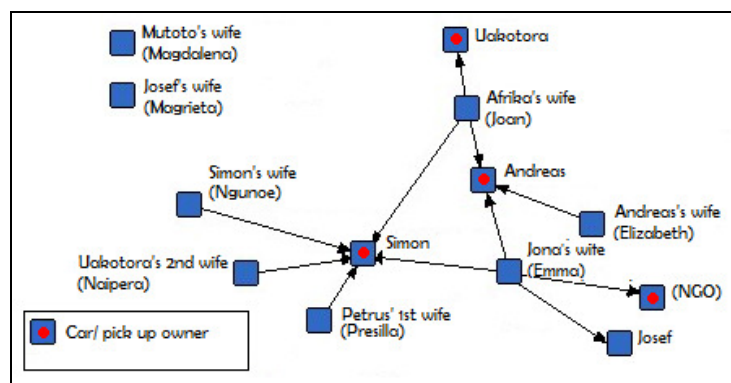


Figure 12. Instrumental support (in matters of transport) got by the wives of the Heads of HH of Okarongo

he is the only person who they can ask for a lift. As it can be noticed in the figure, even Naipera, the 2nd wife of Uakotora asked Simon to take her along because his husband spends a long time outside *Okarongo*. The respective wives of Mutoto and Josef – both members of the newest households in the community – declared that they never ask anyone for a lift. Nevertheless, during my stay I observed that they were brought out of the community at least one time in the vehicle from Uakotora. Simon benefits from these situations, as the interviewed women (all depicted in Figure 12) explained that he charges them between 30N\$ and 50N\$ for taking them along. In such cases when he is asked to drive to Sesfontein without having a personal necessity to do so, he charges 300N\$ or 400N\$ (the price of a middle-size or tall goat). Andreas, another car-owner, does not charge, according to the women who ask him for a lift. It is important to consider that the concerned women are his relatives.

⁷² Josef drives the car for his uncle, Uakotora. The NGO also sometimes offers the possibility of transport, as some workers with a pick-up from the organisation used to visit the job location in *Okarongo*.

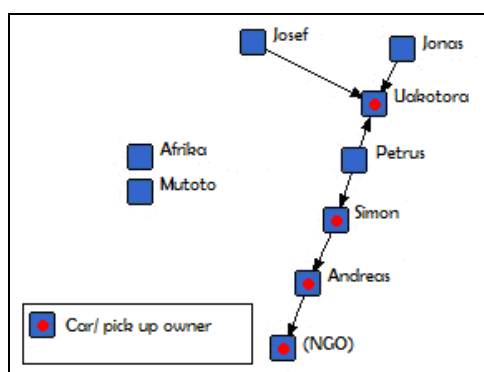


Figure 13. Instrumental support (in matters of transport) got by the Heads of HH of *Okarongo*

In the case of the Heads of household, the situation of instrumental support in matters of transport is quite different. There is only one Head of household, Petrus, who refers to Simon as the person he asks for a lift in order to go to Sesfontein (see Figure 13). However, Petrus usually asks Uakatora (the “richest” villager in *Okarongo*) for this purpose as well. Thus Petrus seems not to be totally dependent on Simon.

Uakatora is also commonly asked by Jonas and Josef, who usually drives the car for his uncle, who is the car owner. According to Jonas, Uakatora charges between 30N\$ and 40N\$ for taking people along, but having to pay is rather the exception. The occasion that Uakatora was asked to drive to Sesfontein without having to go there for personal reasons has not occurred yet. So it could not be assessed if he would charge them (like Simon does, 300 N\$ or more) for taking them along.

The Headman, for his part, tries to avoid using his car as much as he can, because his vehicle is not very reliable, according to his own declaration. Hence, he prefers instead to ask Andreas (who lives relatively close to his household) for a lift every time he (Andreas) is driving to Sesfontein and has space in the load bed (his car is the smallest in the village). For the lift, Simon usually does not have to pay. Andreas, on his part, being the administrator of the NGO based in the community, it is sometimes possible to take the car of the NGO when employees visit *Okarongo*.

Afrika, whose household is the poorest one in the community, usually travels with the donkey-cart to Sesfontein. Only in seldom cases, does he ask Andreas, with whom he has an affine relationship, for a lift. Mutoto, the Head of the newest household in the community, said that he walks to the main road and waits for a lift, although they do not pass by frequently.

8 Discussion

8.1 The conflict as a bargaining process

As already outlined in section 1.2, the approach of Knight is in this paper the theoretical framework used to analyse and explain the situation found in *Okarongo*. 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 *Okarongo*, can be interpreted as a bargaining game *in process* 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.⁷³ 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 the 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, 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 Simon's water point, although

⁷³ 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 *Okarongo*, 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.

frictions with him are pre-programmed. Simon 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.⁷⁴ However, Simon's pretensions 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 *Okarongo*. Primarily because Simon, 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.

8.2 The actors' bargaining strategies and resources

In order to push his interests through, Simon uses concrete strategies such as locking the hand pump or threatening to lock it. However, he also has other bargaining resources. He 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, Simon 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, Simon, as the Headman of *Okarongo* brought another more

⁷⁴ Maybe except for Afrika's household, which has few animals and with which Simon used to share the water point before. Possibly, Simon is further tolerating Andreas' household, the one 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 Simon 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.

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 Simon is the use of discourses. His 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 Simon about the unlawfulness of his actions. In contrast to Simon, 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.⁷⁵

In addition to this, they, as well as Simon, use the recourse of discourses to undermine their counterparts. They do not recognize Simon as their legitimate ruler and above all Jonas even affirmed that Simon 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 Simon's accusations of being a victim of witchcraft remained unknown due to

⁷⁵ 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 in *Okarongo* and in *Sesfontein*.

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.

8.3 Bargaining more than needs and interests

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, I could record that sharing food was a common practice not only in *Okarongo*, 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.⁷⁶ Concerning water, it appears to occur in a similar manner. In *Okarongo* – 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 my interpreter 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. 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 *Okarongo*, the validity of this institutional practice is at play or rather raised into question.

⁷⁶ 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.

8.4 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 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, Jonas 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 with Simon's action of locking the hand pump. He 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 *Okarongo* 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 Simon 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 *Okarongo* 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 *Okarongo* seems to reinforce this argument at least to a certain extent. If we recall, at the beginning Simon was only sharing the water point with Afrika's household. This is a household with which he, Simon, 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 Simon and Afrika 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 Simon'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 Afrika's household (and as the Headman's) 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 Simon. Nevertheless, it can also be supposed that he 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 to not enter a cooperative relationship with the majority of his neighbours.

8.5 The Headman's costs of locking the hand pump

It is important to consider that Simon 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.⁷⁷ Although it is true that 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 and is able to dispense with the sharing structures in the community despite the conflict. In the first case, affine relationships to another household (to Petrus' household)

⁷⁷ From a psychological perspective, in contrast, it is indeed possible that locking the hand pump can constitute a cost for Simon. 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.

enable him to get help to conduct the castration procedure. In this matter another head of household (Uakatora) appears to also offer him his help, possibly to demonstrate cooperation and so to ascertain the access to water for his animals during the dry season.⁷⁸ Regarding the independence of transport facilities, Simon 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 wife 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.⁷⁹ Furthermore, other villagers (mostly the wives of other heads of household) are rather dependant on Simon'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 students who stayed for four weeks in his camping-place, for example, helped him not only with its amelioration, but also with giving him food supplies and even with money donations, as I was able to record through conversations with Simon's adult son. Moreover, other tourists that stayed in the campsite during the research activities gave him medicine and offered to bring two of his adult children to Sesfontein.⁸⁰ This makes him a bit more independent from the material profits of social relationships in the village.

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 Simon 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

⁷⁸ Naturally, herewith the possibility that Uakatora helped Simon without having any further intentions other than being kind, cannot be completely ruled out.

⁷⁹ Following Emerson (1962), the more dependent an individual is on a social relationship, the less power that individual actually possesses.

⁸⁰ This information is based on conversations with the travellers themselves.

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.

8.6 Locking the hand pump: an exercise of power?

If we remember, Simon 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 Simon 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.⁸¹ However, Simon – 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).⁸² 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 Simon's water point in the village. At this point, if Simon locks the hand pump, then the households in mention are more affected. Nonetheless, if Simon 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, then, it turns out to be quite relative, which actor exercises power over whom. The opposing parties were, depending on the situation, dependent or

⁸¹ Afrika's household is far away from the natural water fountains, but has three tanks with each 200 Liter capacity to store water, which are also usually kept relatively full. So, if Simon locks the hand pump, the household members and animals can rely on these water reserves for a couple of days.

⁸² Simon 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.

independent from each other and in case of dependency implementing bargaining strategies to counterbalance the state of affairs.

8.7 Interdependency of water and land use

Although Simon 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, Simon 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 Simon's water point and that the natural water fountains were non-existent, the circumstances in *Okarongo* 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 *Okarongo*, 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 water point in the village is the only water fountain, therefore, 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.

8.8 *Okarongo*: 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 already mentioned, is not decisively structuring the practices of water fetching and animal watering among the villagers. However, in the case of Simon'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 Simon 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, *Okarongo*, 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.

8.9 Ostrom and Knight: two different or two complementary theoretical frameworks?

After having analysed the circumstances found in the research setting by means of Knight's bargaining theory of institutions (Knight 1992) and after having shown that the achievement of collective goals was not the motivation for collective action in *Okarongo* as Ostrom predicts (Ostrom 1990), in this section it is pursued to discuss which of the two approaches can explain reality better and if and to what extent both approaches can complement one another.

The circumstances described in *Okarongo*, namely how institutions were being developed, were an empirical evidence of the predictions formulated in Knight's theoretical framework. But still, is this approach having a general validity to explain how institutions emerge and change regarding the management of natural resources? And what about Ostrom's theoretical framework of institutional choice, is it just an idealised way – in terms of oversimplifying social reality overlooking the role of power – to predict human behaviour in the context of natural resource management? Let me answer these questions beginning with the ones concerning Ostrom's model.

Although *Okarongo's* case shows, that Ostrom's framework disregards the role of power when institutions are negotiated – as remarked by several critics –, it is still important to point out that her approach has been developed through an inductive way, i.e. it is based on several empirically studied cases around the world. In other words: although her institutional choice framework is not reliable when applied to explain the circumstances like in *Okarongo*, it is still scientifically valid because it can predict how individuals behave in the case studies, from which the theory itself was developed. Consequently, however, the approach can only be applied to explain circumstances in the field when a certain prerequisite is met. This prerequisite is that individuals follow a straightforward behaviour. Only then, Ostrom's theoretical framework with all its components will be suitable to explain institutional development.

On the other hand, regarding Knight's theory something similar can be stated: his theory takes a basic assumption as a starting point, namely that actors behave in a self-interested strategic manner seeking those institutional rules that give them the greatest share of benefits. If it is found indeed in the fields, that individual have this attitude (like in *Okarongo*), then his framework will be suitable for explaining the consequent situations in the setting. But if actors are willing to share equally the costs of their agreements and to contribute to collective benefits (like in Ostrom's study cases) Knight's approach would then not be the suitable theoretical tool for the analysis. Both theories have in principle a high explanatory power but only if certain fundamental conditions are there as a prerequisite.

At this point the question arises if and to what extent the two approaches can complement one another. Schematically, however, an attempt to add the element of power from Knight in Ostrom's framework of institutional choice demands clear modifications in its component parts (compare Figure 14 and Figure 15 on pages 96-97)⁸³:

⁸³ The reason why Ostrom's theoretical scheme has been taken as a basis to include Knight's theoretical components is because Knight doesn't offer a graphical representation of his framework. It is then, so to say, because of practicability reasons.

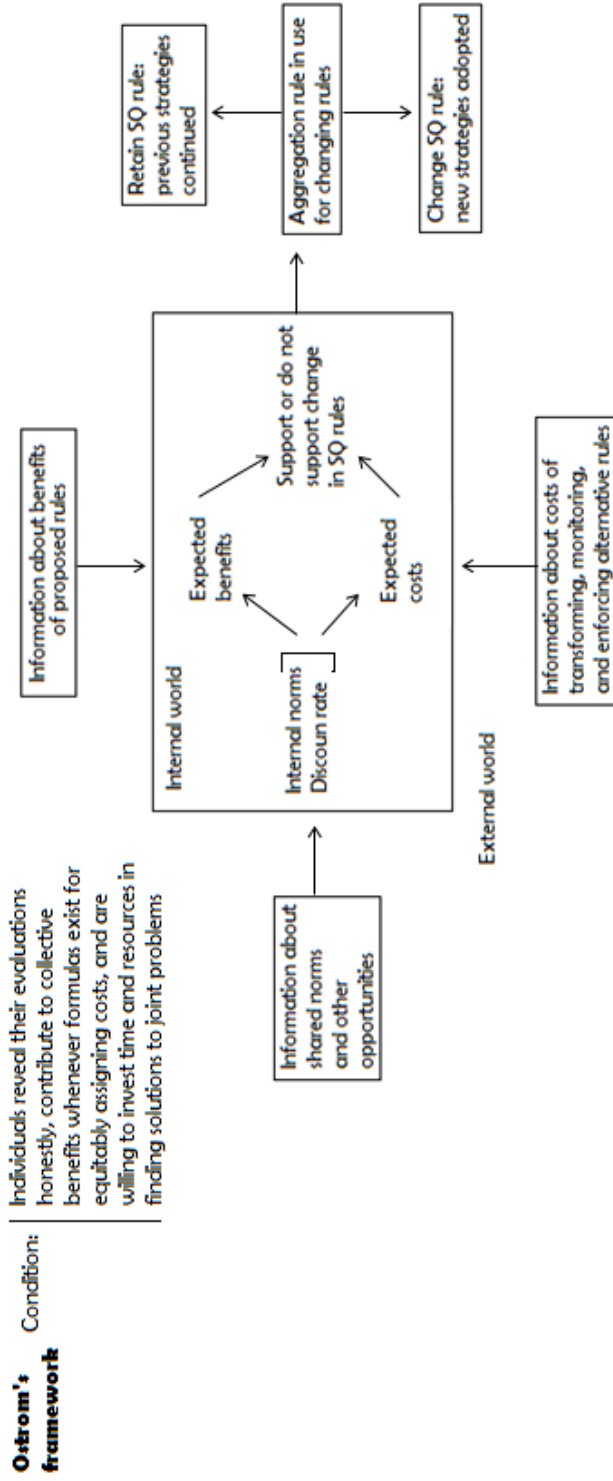


Figure 14. Ostrom's framework for institutional choice

Knight's framework

Condition:
Actors act in a self-interested strategic manner seeking those institutional rules that give them the greatest share of benefits.

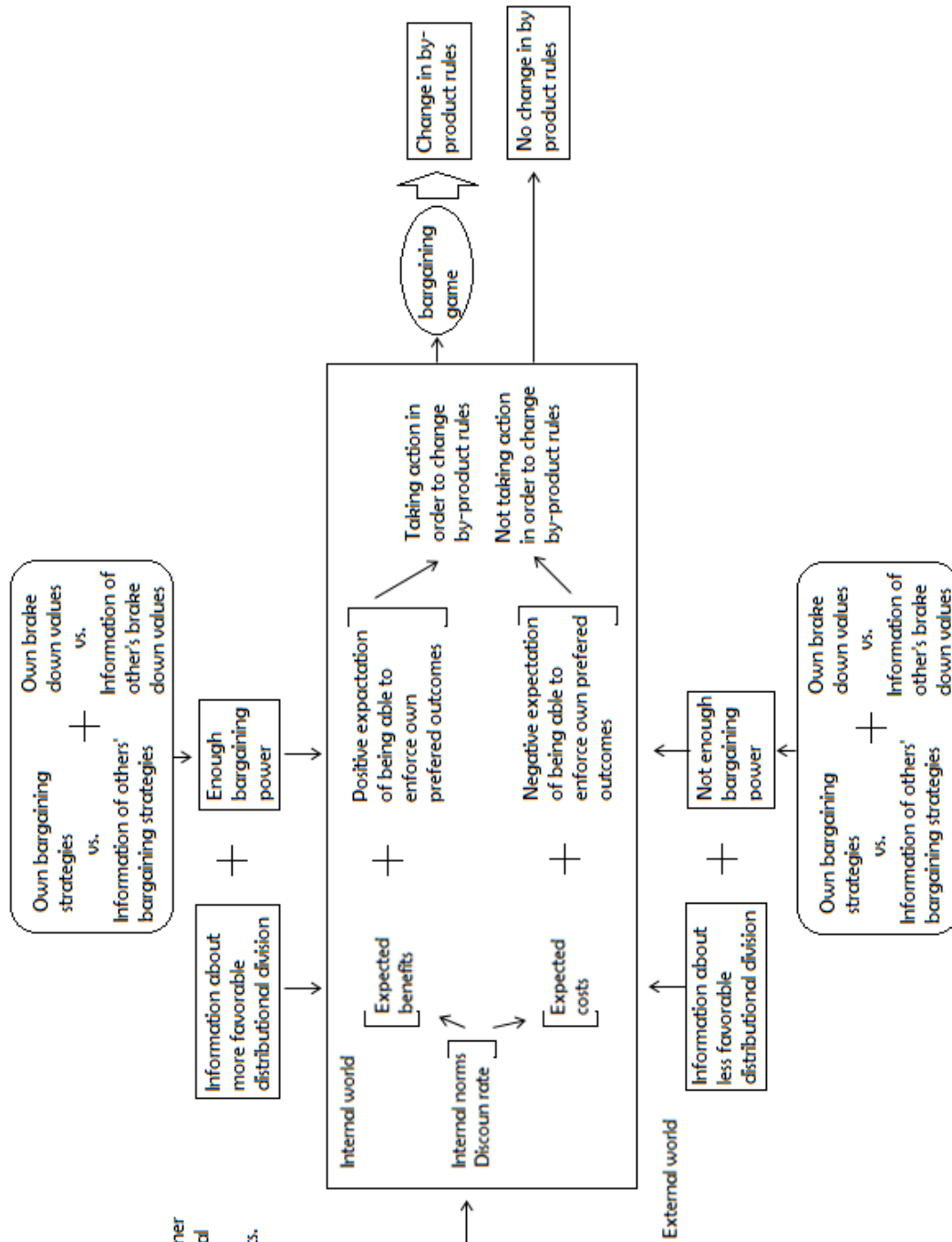


Figure 15. Framework of Ostrom and the attempt to complement it with Knight's theoretical components (own draft)

Due to the condition in Knight's approach based on individual opportunistic behaviour, the first changes in Ostrom's framework occur at the level of the assessment of benefits and costs: the individual won't make a weighting of advantages and disadvantages about the consequences of implementing a new rule for him and the other resource holders as a more or less homogeneous entity. The individual would rather consider if another rule would give him personally a more favourable distribution of the benefits or not. In case that the individual sees indeed an advantage for him through changing a rule and he has also enough bargaining power to push his own interests through, then, a change in the rules will occur after the bargaining game with the other resource users. In Ostrom's framework, in turn, it is implied that institutional change occurs democratically between resource users after the assessment of benefits and costs for them as an entity. The two different ways of assuming human behaviour (i.e. the respective conditions in Figure 14 and Figure 15) by Knight and Ostrom respectively make it very difficult to combine both frameworks. An individual cannot be willing to cooperate with others and at the same time be disposed to force others to act in ways contrary to their preferences. These are two kinds of attitudes that simply cannot complement one another.

8.10 Suggestions for future research

Probably, this theoretical problem of combining both theories cannot be solved, but I think, however, that both approaches could be extended. They explain little about which are the specific (social) circumstances that actually bring or impede individuals in a specific situation to cooperate with each other, to use their power against one another or even to cooperate with one another without using their power against them (although the individuals could do so).

In this paper it has been tried to interpret, above all, why the Headman didn't want to enter a cooperative relationship with his neighbours. The stated reasons for his behaviour have been attributed to diverse factors somehow intertwined with each other: the environmental uncertainty (i.e. the fear of water scarcity) combined with the fact that he was relatively independent and not being (strongly) related with his neighbours. Specifically these two last mentioned factors brought him to a position in which he didn't have much to lose when he was trying to push through his interests against others' even if thereby he was breaking social norms (like the sharing of water). On the other hand, it has been stated that the other community members haven't collectively demanded that the

Headman should leave the community nor have they impede him the use of the water point, although they would have had the power to do so. First, because they were still having the possibility of using other water fountains and second, because they didn't want the conflict to escalate even more (norms of conflict avoidance).

Therefore, more generalized and reliable assertions could be made about what *actually* induces individuals in the context of CPR management to enter cooperative or conflictive relationships with each other by identifying and comparing the circumstances in several case studies that bring individuals to act in a certain manner.

9 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. In the village chosen for this investigation, the realization of the research objectives turned out to be a great methodological challenge, since the access to certain, and above all reliable information proved to be very difficult due to the impacts of my fieldwork role(s) in the tensioned social fabric of the community as well as due to the effects of entered relationships within the same. Nevertheless, despite of the difficulties that stationary fieldwork or rather participant observation brought along, in several occasions it was a proper tool to get an insight into everyday life within the setting, to understand discrepancies between how the participants described their behaviour and how they then actually behaved.

Basing 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 *Okarongo* 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 multi-layered. 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 village, it has been attempted in the scope of this work to analyse the factors motivating his attitude towards his co-villagers. At 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 place, 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 confers 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.

To 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 if 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 *Okarongo*) 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 *Okarongo* 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 at it, 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.

In the concluding section of the discussion part, it has been discussed whether Ostrom’s or Knight’s approach can better explain reality and if to what extent both approaches can complement one another. There, it has been concluded that both theories have in principle a high explanatory power but only if applied when certain fundamental conditions (i.e. if the individuals have an opportunistic or a cooperative attitude respectively) are there as prerequisite. Subsequently, because of the strong differing assumptions of individual rational action, it has been shown that both theories cannot complement each other. Nevertheless it has been formulated that both approaches have the potential to be respectively extended as they explain little about which are the specific (social) circumstances that actually bring individuals to cooperate with each other, to use their power against others or to cooperate with others without using their power against them although they could do so.

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. *Okarongo*, 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 judgment on this matter, further detailed studies are necessary.⁸⁴ Nevertheless, one important insight provided by *Okarongo* 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 *Okarongo*, 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. However, I believe that the communities just need time to get used to this situation of autonomy and that cases like *Okarongo* 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. From theoretical perspective therefore, it can be concluded that *Okarongo* 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.

⁸⁴ No to mention, moreover, that in *Okarongo* 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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International Food Policy Research Institute (<http://www.ifpri.org>)

MICROCON A micro level analysis of violent conflict (<http://www.microconflict.eu>)