

AND POLICY ANALYSIS
513 NORTH PARK
INDIANA UNIVERSITY
BLOOMINGTON, INDIANA 47405



Department of Social Anthropology,
University of Zurich,

Research-section

Muhlegasse, 4th floor
CH-8001 Zurich

Tel:01/6344832/Fax: 01/6344983

Dr. Tobias Haller (phil. I.)

e-mail: thaller@ethno.unizh.ch

Report on the research-project of Dr. Tobias Haller, Department of Social Anthropology,
University of Zurich, Switzerland

Common Property Institutions and Relations of Power: Resource- Management, Change and Conflicts in African Floodplain Wetlands

Project submitted to the Swiss National Science Foundation in May 2001

Accepted in August 2001

1. Abstract of research project proposal

This research project on African inland-wetlands focuses on common property theory and New Institutionalism in economics, social anthropology and political science dealing with institutional change and conflict. The main goals of the research are twofold, and are outlined below:

First, the project looks at the design principles Elinor Ostrom has identified through the analysis of long-enduring institutions for governing sustainable resources, notably of common property resources (CPRs) (Ostrom 1990, Becker and Ostrom 1995). Her work is an important critique of Hardin's famous *Tragedy of the Commons*-paradigm. The project attempts to apply Ostrom's principles to empirical cases from five African wetland-areas in an otherwise arid or semi-arid environment (the Internal Niger Delta in Mali, the Logone Floodplain in Northern Cameroon, the Pangani-River-System and Rufiji-River in Tanzania, Okavango-Delta in Botswana and the Kafue Flats in Zambia). The five regions were chosen because most of the resources in these areas (fish, timber, pastures, wild products, wildlife, agricultural land) are being held as common property and are characterised by extreme seasonal variations in natural conditions throughout the year and amongst the wetlands themselves and their adjacent territories. Moreover, the socio-cultural setting of these wetlands is very heterogeneous: Agro-pastoralists, agro-fishermen, transhumant fishermen and nomadic pastoralists all have different access to these resources (Moorehead 1989, Thomas 1996). These characteristics make the African inland-wetlands, and the common-property-institutions that developed there, interesting cases for the re-evaluation of Ostrom's principles.

Second, the project deals with the destruction of these resources that are held and regulated in common, the changes in local institutions and the conflicts characteristic for these areas today. The theoretical background for this project is New Institutionalism (North 1990,

Ensminger 1992, 1998) which analyses changes in institutions caused by shifts in relative prices (such as changes in market or transport systems etc.). As a result of these changes, endogenous factors in a local society, like institutions, organisations, ideology and bargaining power are altered. We will especially focus on the changes of institutions and of bargaining power. The changes in relative prices in the wetland areas have led to investments by private land owners and urban entrepreneurs. These newcomers - with their superior fishing technology and the means to expand cattle herds - are putting the traditional users (and their sustainable use of the commons) under considerable pressure. Additionally, the newcomers profit from their relationships with government officials and of the governmental control of the areas. The traditional inhabitants - politically powerless, as they are - are thus pushed back to marginal areas, which have to be used still more intensively. This creates conflicts among the users in the communities (conflicts between old and young men, between men and women, between the politically powerful and the weak) and between user communities in the area. There are also conflicts between local communities and the new users (Thomas 1996, Moorehead 1989).

Most of the field locations are all chosen in IUCN project areas and research will be done in co-operation with the IUCN in Gland, Switzerland (Dr. Jean-Yves Piroit) and with local IUCN offices. We will collaborate with the IUCN in the field and we will try to co-ordinate our research with the IUCN, so that it will be useful for them too. But this co-operation will not include financial support by the IUCN.

The project will take approximately four years and will include co-operation with the Social Anthropology Department of Zurich (Prof. Dr. Jurg Helbling), where the main applicant will prepare students for fieldwork in these areas. Preparation has already started with a working group of students in October 2000. Literature and internet research will be conducted by Dr. Tobias Haller and his students up until June 2002. For the first part of this project, which will be funded by the Swiss National Science Foundation, research will be done by Dr. Haller in Zambia, and in Mali and Botswana by students from the Department of Social Anthropology in Zurich, Switzerland. The students' research will be funded partly by that department. Dr. Haller's aim is to finish his post-doctoral work by the end of 2003, including data from Zambia but also from Mali and Botswana. The other regions (Northern Cameroon and Tanzania) will follow in subsequent years and will be financed differently. The first group is currently doing research in Mali, with other student groups following in January 2002 and May 2002. Dr. Haller's own fieldwork will be in Zambia from June to December 2002. He will start writing his post-doctoral thesis and begin discussing the material with Jean Ensminger (California Institute of Technology (CALTEC), Pasadena, California and Elinor Ostrom (Indiana University, Bloomington, Indiana) in the USA in 2003. Between 2002 and 2005 more research will be done in these areas, especially in Northern Cameroon and Tanzania including local researchers, IUCN offices and local universities. There will also be co-operation with local NGOs and with the Pan African Anthropological Association (PAAA).

Keywords: African floodplain-wetlands, Common Property Resource Management (fisheries, farmland, wildlife, forests), New Institutional Anthropology, economic and ecological change, bargaining power, conflicts in rural-urban relations, sustainable development, conservation

2. SNSF-Report on Research among Ila, Tonga and Ba-Twa in the Kafue Flats, Zambia

Abstract of report:

The major part of this project on CPR-institutions in African Floodplains focuses on my research among the Ila/Tonga agro-pastoralists and Batwa fishermen in the Kafue Flats. This floodplain has an extension of 6'500 km² and is a resource rich pocket in an otherwise semi-arid area (900 mm). Due to the flooding the area is naturally rich of fish, pasture for cattle, and wildlife. It has also sufficient water due to the Kafue River (2nd largest river in Zambia) and at least in the western part fertile alluvial soils. In the Kafue Flats there are three National Parks (Kafue, Lochinvar and Blue Lagoon). All CPR- or CPR-related resources (cattle) are on high demand in the nearby capital Lusaka. The research focuses on the southern part of the flats, especially in the Ila Chiefdom of Nalubamba (Mbeza). This area is inhabited mostly by the ethnic group Ila, but since the 1930ties there are Tonga peasants and Lozi fishermen settling in the southern and the northern part of the territory which is not densely inhabited (28'000 people in 2000 km²; 14 p/km²). Nevertheless the Ila face serious hunger crisis due to drastic environmental and institutional changes in the last 40 years: Dams and climatic change have reduced floods and rainfall resulting in bad harvests of maize and a reduction of the pasture. The government has taken over the control of the local fisheries and wildlife, pushing aside the old CPR institutions and leading to open access and to the degradation of the resources. Additionally, a cattle disease has lead to a massive decline of the herds in the 1990ties and therefore many households lack cattle. The research results show the role of institutional change in explaining hunger in the area. Another aspect of the research regards conflicts on how the floodplains shall be used in the future: The Chief wants to introduce an irrigation project to fight hunger and is supported by the state. Some rich cattle owners do reject this plan, because it would reduce the pasture. This opposition has a stronghold in the political opposition in Zambia and uses ethnic Ila identity to fight the project.

3. Extensive Scientific Report

Important notice: This report is strictly confidential for the SNSF, Please do not give it to other organisations for it contains information on problematic issues and on conflicts.

This research focuses on institutions governing the use of common property resources in African floodplain wetlands and included in a first step the Niger Delta in the Mali (Bozo and Somono fishermen), the Okavango-Delta (different so called "bushmen"-groups and Tswana) in Botswana and the Kafue Flats in Zambia (Ila, Plateau Tonga and Ba-Twa). The first two regions have been studied by students of the Department of Social Anthropology, who are doing their MA and whom I have supervised from October 01 until February 02. My own research was done in the Kafue Flats, Zambia (for full activity plan since the first of October see table activities at the end of this report).

3.1. Report on research in Mali and Botswana:

First data on the research in the Niger delta are already available (Beeler, Sabrina. 2002. Kollektivressourcen und institutioneller Wandel. Die Fischerei der Tie-Bozo von Gomina im Nigerbinnendelta von Mali). Karin Frei (working on the Somono fishery group in the same area) and Roland Saum (working on the bushmen and their use of CPRs in the Okavango-Delta) will finish their reports by the end of 03). Already the work of Sabrina Beeler shows that the role of institutional change is one of the major factors leading to the overuse of the fisheries in the floodplain of the Niger delta in Mali. Fish has always been but now is even more a very important commercial resource, which was once controlled by local institutions. But with the control of the state over this resource the local regulations can no longer work properly. Some of the old rules, which give access to money income, still remain while others do no longer operate. Because the fish catches are declining and fishing is done more intensively, there are numerous conflicts taking place between local and immigrant fishermen and women. Beeler shows in her work that the more powerful groups and individuals within a community and the more powerful external groups manipulate the institutions in order to profit from the resource at the expenses of the less powerful. An analysis with the help of Ostrom's design principles and Ensminger's approach of the New Institutional Anthropology was very helpful for the analysis. Especially the robustness of the old institutions compared to the new institutions could be shown, while Ensminger's approach focussing on power and ideology was helpful in analysing how the allocation of the resources was legitimised. One critique of Ostrom's principles regarded the concept of "clear boundaries". It must be stressed that under pre-colonial circumstances the boundaries were quite flexible without leading to an overuse of the resource. Important features were the rules indicating who had access to the resource in which context and the operation of rules of reciprocity. Another aspect in the critique is focussing on the concepts of property, which are most of the times ethnocentric and too narrow for the use of complex eco-systems such as a floodplain wetland. Pluralistic approaches seem to be more appropriate for the analysis.

3. 2. Preparation of own fieldwork:

Sabrina Beeler's work together with the works of Karin Frei and Rolan Saum will be only used for a short comparison of my own fieldwork among the Ila speaking peoples in the Kafue Flats, Southern Province, Zambia. Between October 2001 and June/July 2002 I was among other things (see table of activities) busy preparing myself for the fieldwork among the Ila. Before going to the field I had several contacts with Prof. Ostrom (Indiana University) and Prof. Ensminger (CALTech, California), made an extensive literature study and attended the APAD-ASC-Conference in Leiden, The Netherlands May 22-25, 2002 where I presented my research, and made preparations for my field work in Zambia (Contacts with IUCN Zambia,

WWF Zambia, University of Zambia). Additionally I published for the NCCR North South, IP6 a paper on the link between institutional change and livelihood strategies.'

Fieldwork in Zambia was done partly in collaboration with my wife Dr. Sonja Merten (Institute for Social and Preventive Medicine, Basel), who started a study entitled "Perception and interpretation of traditional and biomedical health concepts in a rural African community: Nutrition among the Ila-speaking peoples in Zambia". She has received grants from the SNSF (Forschungskommission Basel) and the KFPE. Dr. Merten is a medical doctor working in the field of public health and a member of the Gender-Colloque Basel. Her research is supervised by PD Brigit Obrist and Prof. Marcel Tanner (Swiss Tropical Institute, Basel), and Prof. Ursula Ackermann-Liebrich (Institute for Social and Preventive Medicine, Basel). As our research topics are related (my study is on the institutional access to CPR-resources, her work is on nutrition and therefore connected to resource utilisation) we combined our two questionnaires. I could profit from the co-operation with Dr. Merten in so far as we enlarged the sample to 250 households with whom we made three questionnaires. This will enable me to get more statistically reliable data.

I collected the following data (partly in collaboration):

- participant observation
 - 13 biographies,
 - 7 focus group interviews
 - structured questionnaires: 4 village CPR-use questionnaire, 3 fish species questionnaire, 1 cattle race questionnaire
 - numerous thematic semi structured interviews on different topics, especially on CPR-institutions on pasture use, fisheries and hunting, history of Mbeza, environmental related oral history
 - 7 expert interviews,
 - gathered data for maps and the emic view of the ecological zones
 - made diaries
 - archive research in Livingstone
 - 750 questionnaires

3. 3. Scientific report on research among the Ha/Tonga and Ba-Twa people in the Kafue Flats:

Introduction:

The Kafue Flats are a floodplain situated in the Southern Province in Zambia in the Southwest of the Capital Lusaka. The plains are flooded by Zambia's second largest river, the Kafue, normally between January and April. In the past the area has been a very rich resources pocket in an otherwise semi-arid area with annually not more than 838 mm rainfall (Ellenbroek 1987, Chabwela 1992). Due to the flooding the area is naturally rich of fish, pasture for cattle (nutritious grass varieties grow after the floods have retreated) and wildlife. It has also sufficient water due to the Kafue River and at least in the south western parts fertile alluvial soils. In the Kafue Flats there are three national Parks (Kafue, Lochinvar and Blue Lagoon) and a Game Management Area where the use of wildlife is regulated. The area is inhabited by Ila (or Mashukulumbwe), Plateau Tonga and the indigenous peoples of the area, the traditional Ba-Twa fishermen. The latter are living close to the Kafue River. These ethnical groups are organised in 14 chiefdoms (11 Ila and 3 Plateau-Tonga, the Ba-Twa do not have their own chiefdom and are included in several chiefdoms that have territories up to the

'I am member of IP6 in which I help only loosely supervise research in Cameroon and Tanzania. In my holidays (three weeks between July and August) I visited on my way to Zambia Yaounde' and Dar es Salaam in order to initiate this research. After my funds of SNSF have expired I will be working for IP6 and paid by the NCCR North-South. Up to now my activities for NCCR were very reduced and I have not been paid any salary.'

riverbank). The research was conducted in the South bank of the flats in three districts (Namwala, Monze and Mazabuka) among the Ila Chiefdom Nalubamba, the Plateau Tonga Chiefdoms Mwanachingwala, Chongo and Hamusonde and the Ba-Twa of a settlement at the Kafue River called Nymba. Most of the time research has been done in the Ila Chiefdom Nalubamba called Mbeza. The Ila of Mbeza are traditionally transhumant pastoralists and agriculturalists. Their major subsistence activities are cattle husbandry and cultivation of maize, but fishing and hunting have been important for subsistence in the past. In the literature up to the 1970ies the Ila are referred to being one of the wealthiest cattle people in Central Africa with an average of 13.1 animal per male adult (Fielder 1973:1973). The Ila households are polygamous and kinship organisation is bilateral, although in the old literature it is argued, that the Ila are matrilineal because the clan orientation is structured through the mother's line. In the past the Ila and the neighbouring Plateau-Tonga (referred to as well as Ila or Balundwe-Ila in Smith and Dale 1968) were living in large villages before colonial times in order to protect themselves from slave and cattle raids of the Lozi and from attacks of wild animals. After the Pax Britanica these big villages broke up more and more and today the people live in villages made up of scattered hamlets. Although the Ila have been the victims of Lozi attacks from the north west, they were known as fierce fighters. Conflicts were common between villages and between chiefdoms. European explorers such as Emil and Rosa Holub were attacked in Mbeza during their visit to the Ila country in 1885.

Mbeza is the name of the territory (*chichi*), which has clear boundaries and is subdivided into village territories, which also have boundaries. Today, there are 76 of such villages in the whole area of Mbeza. The territory of approximately 2'000 km² is inhabited mostly by Ila clans, but since the 1930ties there are Tonga-peasants and Lozi-fishermen settling in the southern and the northern part of the area. In 2000 Mbeza had 28'000 inhabitants (14 p/km²). The political structure has been transformed considerably since colonial times: Before colonial time there were important men of large villages within the territory and there was no Chief as such. Chiefs were introduced by the colonial powers in the whole area of the Ila and Tonga in order to establish so called Native Authorities, who were collecting taxes and dealing with local conflict resolution at the Native Authority Courts. At the next lower level there are the village headmen who are responsible for all communal activities and conflict resolution on village level. This structure remained after post-colonial times although the powers of the Chiefs were considerably limited by introducing government courts. Today, generally in Zambia, the Chiefs try to recapture their lost power and want to be more incorporated into the political life again. Locally, the Ila and Tonga Chiefs are still important and powerful, although their powers are always contested and challenged. Chiefs have to show that they are able to distribute resources and if they fail their political legitimacy is undermined. An Ila or Tonga Chiefs power is not always as respected as it is for example with other ethnic groups in Zambia such as the Lozi and if a Chief decides on a matter, it is not evident that all the members accept his decision (for more information see Tuden 1968, Fielder 1973, Cutshall 1980).

Power and access to resources are embedded into religious believes: The Ila are traditionally monotheists but believe as well in the existence of spirits and especially ancestors who give them the right to give access to land, pasture and fish resources. The ancestral spirits are very important for making rain and are worshipped at special locations. Since colonial times about seven catholic and protestant churches and missions have established themselves in the area and most of the people are Christians but believe in the ancestors and in witchcraft is still very strong.

Colonial and post-colonial times have lead to major economic changes in Mbeza which will be outlined only briefly in this report. The capital Lusaka is with about 250km within close reach and the Kafue Flats in general are one of the most affected areas by the economic

developments in the capital. Water and electricity for Lusaka comes from the Kafue River and the fertile land close to the road is partly used by rich white farmers. The city of Mazabuka (130 km south-west of Lusaka at the beginning of the Flats) is home of the only sugar cane plantation in Zambia which now belongs to a South African Company and which is producing intensively using and polluting the water of the river. In the time of the first president Kaunda large dams have been constructed between 1972 and 1977. The first at Kafue Gorge before the Kafue River enters the Zambezi River and then the second at Iteshi-teshi, 300 km upstream. It was the aim of the government to use the water for electricity production and water supply for the capital and therefore to regulate the flow of the Kafue River (Jeffrey, Chabwela, Howard and Dugan 1992). This had a serious impact on the ecosystem of the Kafue Flats and its resources as will be shown below. The Flats were naturally rich in fish, wildlife, fertile alluvial land for agriculture and pasture for cattle. These resources are on high demand in Lusaka, at the line of rail and in the Copperbelt; directly through the sale of fish and game meat, indirectly through the sale of maize as the major cash crop between 1950 and 1990 and also, to a much lesser extent in older days but much more now, to the sale of cattle. By this way a lot of resources are extracted from the area with negative consequences for the local peoples. The state interferes with the local institutions by imposing its own rules of access to fish and wildlife. It does this with the introduction of national laws, national parks, game management areas (GMA) and licences. Since the 1990s there have also been two dramatic environmental changes taking place:

- First, the rainfalls are less and less reliable and the area is getting drier which can be shown by the growth of woodland in the Flats. But contrary to this situation the dry season is in some parts of the flats wetter than in earlier times because of the water release from the Iteshi-teshi dam. Nevertheless drought is one major problem affecting the agricultural production in the area today. This reduces the gains from the major cash crop maize.
- Second, the outbreak of a cattle disease (corridor disease) has reduced the herds of the Ila considerably. This disease has struck most between 1989 and 1992 and a lot of households could not rebuild their cattle herds since then.

My study focussed on how these changes affected the traditional institutions regulating the access to the CPRs (pasture, wildlife and fisheries) and how the formal institutions interfere with the local "rules of the game". The aim is to come to a conclusion on the role that the institutional change plays regarding overuse of these resources and therefore the deterioration of the livelihoods in Mbeza and in the neighbouring Chiefdoms. Although the data has still to be analysed, it is possible to make first comments on four areas of concern in this study, which have been the major poles of subsistence production and which were institutionally regulated CPRs or dependent on these resources. These are use of pastures and cattle husbandry, hunting, fishing and agriculture.

Cattle keeping and use of pastures

For the Ila the main activity and source of identity has always been cattle herding. They have developed a transhumance system that is adapted to the seasonal changes in the ecosystem of the Kafue Flats. After the water recedes between June and July the cattle herds are taken on a regular basis to the floodplain, the banks of the Kafue River and its tributaries (*kuwila*). They are taken back to the villages in December and January when the water rises again (*kubola*). Most families - in former times whole villages or kraal groups - had their own cattle camps (*lutanga*). Pasture was communal property but the control over the pasture was in the hands of one family group who claimed to be the first ones coming into the area after the indigenous Ba-Twa fishermen. This "first-comer-group" is called Kazoka and its members, represented by the headman, demanded one head of cattle of each of the other user groups. By once giving

this "payment" the other families and villages got the usufruct rights to their pasture sites and cattle camps. After this payment, a group had the right to use the same pasture area all the time. The usufruct right could be inherited without renewing the payment. The boundaries of the *lutangas* are mostly natural ones: Many of them are located within tributaries of the Kafue River and oxbow-lakes where the cattle is save during the night and in which traditional fishing with spears takes place. Cattle are important for marriage, for political purposes and for storage of wealth. The last point has often been misunderstood in the literature and by officials in the past: it is not only for political reasons that owning a lot of cattle is the goal for most Ila men (and women). Large herds are important for security reason, for cattle are seen as a security bank in times of need. Cattle can be exchanged with maize or they can be sold. In olden days milk was often consumed in the households while cattle was only slaughtered for meet at funerals. In the colonial and the first part of the post-colonial times, the slaughtering of many animals at funerals was criticised by officials. They saw cultural reasons inhibiting the Ila selling more cattle to the urbanised centres like Lusaka, the Copperbelt and the so called line of rails (rail to Livingstone and today's Zimbabwe). It is true that the Ila were reluctant to sell cattle but this "habit" had more economic reasons than political or cultural ones as is shown in the work of Robin Fielder (1973).

Today, the situation has changed completely. In times of need in the beginning rainy season one sees lots of lorries leaving the area loaded full with cattle. Those who still have animals are now selling regularly. But most of the people lost their cattle between 1989 and 1992 due to a massive outbreak of corridor disease (also called east-coast fever). This sickness is transmitted by ticks, which were less common in the Kafue Flats before the construction of the Iteshi-teshi dam because the ticks were drown by the floods during the rainy season. After the dam was build, there was less flooding in the Flats and as a result there are more trees now and less pasture. Additionally, the ticks do not get killed in the same amount as before 1977. On the other hand there is more flooding in the dry season due to water release at the dam. This leads to the situation whereby the ponds in the Flats have more water in the dry season now than before the dam was build. In earlier times the cattle used to feed on the grass in shallow water and swamps that had nice fodder. In order to get access to this green grass the animals stood deep in the water and by this lost the ticks that were drowned. But now paradoxically the water in these ponds in the dry season is too deep and has no grass and therefore the cattle fed on the higher grounds, where they are attacked by ticks and cannot loose them. This is an indigenous explanation why the corridor disease spread since the 1980ties, which is partly supported by scientist from the veterinary department and staff from a Zambian-Belgium veterinary co-operation project.

Regarding the changes in the use of the pasture area and the environmental changes it is at this point not possible yet to come to a final conclusion regarding the sustainable use of the CPR pasture and to answer of the question if the carrying capacity is reached or not. For this all my data have to be evaluated carefully. Nevertheless the factors contributing to an analysis can be outlined.

- On one hand, cattle population has massively declined especially between 1989 and 1993 but since then is growing again slowly. As growing maize for cash crop purposes gets more and more difficult due to the climatic change, herding more cattle and selling cattle could be an option in the future to increase the herds. If cattle is becoming more and more a alternative in order to earn cash and the old institution of selling only after basic household needs can be met is changed, a more intensive meat production could establish which would increase the herds in the flats considerably. There are already intentions to privatise the communal property of the pasture area indicating that a more intensive use could take place in the future but with the idea in mind that there is still plenty pasture available.

- On the other hand, due to the man made ecological changes in the flooding and because of there is less rainfall in the last 15 years, the pasture area has diminished and the woodland in the direction to the Kafue River is growing. Our informants estimate that the pasture area in Mbeza has diminished about 25-50% from what officials and scientists have estimated in the 1960ties and 1970ties (see Fielder 1973:332, 348) and that with the growth of the cattle population the carrying capacity could be reached faster than it is regarded now due to the loss of cattle because of corridor disease. Considerable problems could occur if a proposed irrigation project would be implemented in the pasture area whereby again reducing the pasture (see page 11). Additionally, a big portion of the pasture lies in a Game Management Area close to the Lochinvar National Park. Due to vegetation changes (immigration of an Australian weed called *Mimosa pigra*) the endemic Kafue Iechwe antelopes (*Kobus leche kafuensis*) and zebras (*Equus bruchelli*) leave the park and graze on the pasture area creating a concurrence between cattle and wildlife.

Hunting institutions and change:

Up to the 1950ties hunting and fishing has been important for subsistence. In the biographies, which were made with many old men and women, the abundance of antelope meat and fish was always underlined compared to today's hunger crisis in the area. Hunting was done with spears and with dogs and regulated by local institutions: In pre-colonial times hunting in another *chichi* without permission of the chief or a headman was dangerous. One could be beaten or killed. Within a *chichi* however wildlife was common property and hunting was allowed for everybody belonging to the community. It has to be stressed as well that it was too dangerous in pre-colonial times to move around because of the slave and cattle raiding attacks by the Lozi and other Ila groups. But for most of the times there was no need to go far away from the villages in order to be a successful hunter. The *Iechwe* antelopes came close to the villages and could be hunted in the village territories.

On the other hand the Ila and neighbouring Tonga people had to face the problem that game such as the *Iechwe* was living in migrating herds which were not staying within the *chichi* boundaries. In order to secure what is called "optimal foraging" in hunter studies, the inhabitants of each of the chiefdoms Mungaila, Nalubamba, Hamusonde and Chongo as well as the local Ba-Twa people were calling twice a year for a collective hunting time, lasting only one or two days (*chila*). All the inhabitants of these areas were gathering in big numbers with their spears and dogs, making a big circle around a herd of *Iechwe*. By closing the circle they could kill a lot of animals at once. The officials saw this old hunting institution as being dangerous and leading to the extinction of the species. *Chila* is forbidden since the 1950ties and the control of the game has been taken over by the colonial and post-colonial government. But contrary to the expectations, the animal population has declined considerably since then due to poachers from the cities and due to the lack of local hunting rules. Access to game is now made difficult for locals for it is forbidden to hunt with dogs. The law requires a modern gun and one has to buy an expensive licence that locals cannot afford. If caught hunting or only in the possession of game meat, one is fined heavily: We were told of people who were sentenced five years in prison for only possessing game meat. Additionally, there are reports that locals were shot by game scouts, who are now monitoring the Lochinvar Park and the neighbouring Game Management Area (GMA). Nevertheless, monitoring is far from being perfect, game scouts are badly paid by the new Zambian Wildlife Authority (ZAWA), transport facilities are bad and the moral of staff is bad too. Although local people shall profit from the park and from the GMAs by so called CRB's (Community Resource Boards) - local boards of people managing the area and profiting from the revenues of the park and from commercial hunting - locals are ignorant of the existence of the CRBs and the money goes directly to accounts controlled by the chiefs or staff of the chiefs. So the local population as well as the chiefs themselves view ZAWA as taking away the resource from them, which in

their eyes once belonged to them. They therefore do not see the need to protect the animals. One part of the population, especially young men, continue hunting - or poaching as the term is used by officials AND locals - with dogs and selfmade guns in remote areas in the Kafue Flats, where they know that the scouts will not reach because of dangerous animals (crocodiles and hippos). The meat is then sold locally to the people or to traders (male and female). These traders then sell the dried meat on the road or they travel to Lusaka in order to sell it there. Most of the people hunting want to get access to the resource before it is taken away by commercial hunters from the cities. Those have the money to buy the licences and are well equipped with modern guns and pick up cars on which they carry deep freezers. The situation in Mbeza shows similarities with what Gibson (1999) has described for Zambia under Kaunda's regime when ZAWA was called ADMADE (see Gibson 1999).

Fishing institutions and institutional change:

Another important subsistence activity was fishing in Kafue Flats. Even more than hunting, fishing was institutionally regulated by the local Ila of Mbeza and also in the neighbouring Ba-Twa and Tonga communities and these regulations were operating in pre-colonial and as well to a certain extent in colonial times. Fishing was done according to the different seasons in the Kafue River, the flats, oxbow lakes, lagoons and in the tributaries. The Kafue River was controlled especially by Ba-Twa who respected breeding grounds during the early rainy season and sanctioned fishing with reference to their believe, that their ancestors would punish them with the loss of fish stocks. In the same way, the Ila-Tonga of the different Chiefdoms (Chongo, Hamusonde and Nalubamba) had specific institutions governing the use of the fisheries. In the dry season fishing was done in ponds, oxbow lakes and at the Kafue River by cattle herders staying in the flats close to the river. At the cattle camps, the user of a pasture area did fishing. These users could invite their neighbours for a controlled collective fishing activity called *Iwando*. This gave then the permission to use the neighbouring fishing grounds as well. The same applies to the villages where dry season fishing was done in ponds under the control of the owner group of such a pond, before fishing was closed and forbidden enabling the fish stock to reproduce itself during the rainy season. In the rainy season fishing in the tributaries was done first by the owner group of a pond or river section giving after that the opportunity to the whole village, the chiefdom and people from neighbouring chiefdoms to come for controlled collective fishing called *ikuo*. At this occasion fishing was done by the women with controlled baskets and by the men with spears. The different owner groups claimed to control the area and give access to collective fishing due to the permission they received by their ancestral spirits. They supervised the fishing activities and sanctioned those who did not comply to the rules with the help of the leaders in olden days and with the help of the headmen and chiefs in colonial times.

Regarding the fisheries major changes have taken place since pre-colonial times leading to a severe reduction of the catches in the Kafue River Basin. Although the decline is difficult to be shown statistically due to bad official data, officers from the fishery departments of Mazabuka, Monze and Namwala Districts have reported a drastic reduction of fish. They explain this with the use of bad fishing methods by immigrant fishermen, methods that are taken up more and more by Tonga and Ila people themselves. In the same way as hunting was a subsistence activity in former times, fishing was important for home consumption but not commercially and the Ila were not much interested in the commercial side, leaving this to Lozi and Bemba immigrants since the 1930ties. Especially the Lozi-fishermen established fishing camps in the Kafue Flats and at the Kafue River. These areas were already inhabited by the Ba-Twa fishermen, a group who is probably immigrated centuries ago probably from today's Botswana. Some are not as tall as the Ila-Tonga and are lighter in colour as the later. Most Ba-Twa look like the so-called bushmen, while others look like Ila-Tonga because of intermarriage between these groups. The Ba-Twa can be regarded as the indigenous people of

the area and are looked at as being inferior by most Ila and Tonga and by the immigrant Lozi. Fishing was the main activity for subsistence of the Ba-Twa and offered them a relative independence at the riverbanks, which they have lost nowadays. By the immigration of commercial fishermen the Ba-Twa see themselves being pushed away from their fishing grounds that get overexploited. On the other hand, the Ba-Twa themselves are now also involved in commercial fisheries and hunting. But as they are adapting in this way to the new economic circumstances they face many problems. Among these they complain, that they are harassed in the park by a tourist operator and game scouts.

Since the Government of Zambia has taken over the control of the fisheries there have been major changes: Even before independence commercial fishermen (mostly Lozi) started to fish in the Kafue River and in the Flats using nets and motor boats. In order to regulate the fisheries after independence, the Government of Zambia put the fisheries under the control of District Departments that have to cover large areas of about 80 km along the river. For these areas fishing licences can be obtained on a yearly basis for a very low price compared to the gains to be made from selling the fish. The Department itself shall ensure that no nets with meshes smaller than 76 mm is used. As the gains from fishing are high and the capital Lusaka is close, the demand for fish for this market is rising and attracts a lot of commercial fishermen (Lozi, Bemba and others) and fish traders from town. The Fishery Departments themselves are understaffed and not well equipped regarding transport facilities and fail to control the licenses and the fishing gears. This leads to an open access of the in former times under traditional institutions controlled common property resources because the new comers mostly do not respect the local fishing regulations and can at the same time not be controlled by the Fishery Departments. As a consequence, bad fishing methods are used: Fishing is done with plastic nets with very thin wholes, normally used to protect plantations from the sun called *chikupula*. Another method used is a small meshed net into which the fish is driven by the use of wooden sticks that are beaten on the water surface creating noise, called *kutumpula*. Additionally, mosquito nets and other destructive techniques are used in order to catch more and more fish. As mentioned before, monitoring is very difficult but if possible also useless for the sanctions are very low. Penalties are 10'000 Kwacha that is about only one tenth of a daily income a fisherman can make in good times. Big fishing camps along the Kafue River can be observed in the dry season with sometimes more than 900 fishermen. As a result of this process the catches go down drastically in several areas of the Kafue Basin: Especially in Mazabuka, Monze and Namwala District catches are going down as reported to us during our research in the area. The lowest catches are reported from fishing camps such as Shimungalu (Mazabuka District) and Namwala. Fishermen from these Districts now travel further up and down the Kafue River in order to find fishing ground that are less plundered. These they find at the border of Namwala and Monze District in the Chiefdoms Nalubamba and Hamusonde, where good catches are still possible close to the Chunga Lagoon. But already in Monze District (Plateau-Tonga) in Chief Chongo's and Chief Hamusonde's area catches are reported to have dropped between 50 and 25% in the last 5 years. The same is true for the Ba-Twa fishing village Nyimba where a lot of immigrant fishers have settled now. This area is close to the Lochinvar National Park and the Chunga Lagoon, home of many migrant birds that also rely on the fish. These areas lie in the frontier zones of the Chiefdoms Mwanachinwala, Chongo, Hamusonde and Nalubamba. In the Chiefdoms of the latter two, many growing fishing camps have established themselves that are accessible through the park. Fish traders buy fish in these camps or on regular fish market days that take place in the Lochinvar Park itself. Although there is still fish to be caught and the catches reported by the fishermen have not yet reached the loss of Shimungalu, they are already starting to decline due to the bad fishing methods introduced by the new influx of fishermen who have used up other areas. Especially in Chief Hamusonde's area local headmen are very concerned about the situation. Attempts to implement the old rules or to introduce new ones to prevent fishing with bad

methods have failed due to the resistance from the Lozi and Bemba fishermen. These immigrants threaten the local Tonga and Ila by saying that they would violence if controlled and show no sign of accepting the local rules. The main argument used by the immigrants is that they are Zambians and therefore they have the right of access to the fisheries. In their view the local peoples do not have the right to restrict the fisheries in the territory. The local headmen and Chief Hamusonde have now taken up the initiative of the officers of the Fishery Department Mazabuka and Monze to set up their own by-laws which are complementary to the actual national fishery laws. By this the local people shall be empowered to monitor the fisheries in their area and to sanction bad fishing techniques. Additionally, local headmen are very concerned about the changes in manners and behaviour in the fishing camps as much as about the health situation. The camps attract prostitutes and women who are selling their bodies for fish and for milk in the nearby cattle camps. The same situation is now developing in Chief Nalubambas area as well, where by-laws will also be discussed. I have taken an active part in this process only in so far as helping in the facilitation of the by-laws and in the bringing together the local representatives and the staff from the fishery department.

Agriculture and green revolution:

Historically, the role of agriculture in Ila economy is not easy to assess. In olden days, it seems that although there were more different crops (not only maize as a staple crop but as also millet and sorghum and many vegetables) and especially for maize more varieties, agriculture was just a secondary subsistence matter. Agriculture was certainly seen as being inferior to cattle herding. Land for cultivation was under the control of the chiefs and the headmen. They distributed the land according to the family needs and could give a long-term usufruct right as a consequence of a long-term utilisation, a right that could be inherited. But the users could not sell land and the right to special trees (called *munga*) that were used for the construction of canoes were not in the users hands. Generally speaking agriculture was extensive with lots of land available and possibly long fallow periods.

It was only in the late colonial times and after independence that maize production became an important commercial factor in the Ila area. The more female-based hoe production was transferred into a more male-oriented domain by the introduction of ploughs and later of high-breed seeds, fertiliser and herbicides. This process of commercialisation was a kind of green revolution making selling of maize one of the major sources of income during the time of former president Kenneth Kaunda (1964-1991). By this process the old maize seeds have nearly vanished. This can lead to genetic erosion with serious consequences that are seen already now: Seeds are expensive and supply is badly organised. Additionally, compared to the old varieties, the high breed maize cannot be stored and therefore it is difficult to organise reserves of maize for hungry times as today. Agriculture has expanded considerably but land cannot be regarded scarce as such. There is as well at the moment no sign that the regulation of the access to agricultural land as a common property may be limited. Although generally there is now a process taking place by which some individuals try to get title deeds or have them already. But this is done in regard to secure pasture areas and not agricultural areas. But it is possible that with the introduction of a proposed irrigation project, the old institutions regulating the access to agricultural land may be changed and powerful individuals may try to obtain title deeds. Regarding the carrying capacity there seems to be no problem at the moment. But if the cattle herds grow again there can be a problem of competing land uses in the rainy season, when the cattle come back from the river and more land close to the village is under cultivation. Nevertheless, the major problem today seems to come from the lack of rain due to climatic change. This is not seen as being caused by men but in the eyes of some inhabitants of Mbeza, who still believe in the power of the ancestors, as the will of those ancestral rain bringing spirits, who want to punish the people for their neglect in worshipping. On the one hand due to converting to different catholic and protestant churches there is less

belief in the power of the ancestors. But on the other hand there is no unity in the spiritual rain making activities for different ritual specialists claim to know the right way to make rain. More obvious man made problems can be shown for those people cultivating close to the river and the tributaries. For them the irregular flooding in the dry season by the power producer ZESCO operating the Itshi-teshi dam in the upper part of the river is a big problem. ZESCO often is unable to inform the people early enough when they release the floods. During our stay two days before a major flooding the company informed about its activities in a newspaper advertisement, that is perhaps read by the people in the cities but not by the rural inhabitants of the Kafue Flats.

Contesting over the use of the wetlands: the actual hunger crisis and the conflict about the Mbeza irrigation Project:

During our stay, the food crisis in the whole Southern Province began to worsen and many households in Mbeza suffered severe food shortages. Nevertheless it has to be said that the differences between the households are big regarding wealth in cattle and regarding reserves of maize. In order to mitigate the food crisis the local Chief Nalubamba reintroduced the idea of an irrigation project in the Mbeza territory he had already proposed earlier without success. On 4'000 ha maize, rice, wheat and other crops shall be grown with the use of the fertile land in the pasture area and the water from the Kafue River. The project, of which 3'000 households in Mbeza shall profit, rises many unanswered questions. The project shall be paid with the help of the Zambian and the Italian government and uses an approach of modernisation which was common in the 1960ties: It is not a small scale project adapted to the local needs but a large scale irrigation project of which the environmental and socio-cultural impacts are not studied. The ownership issue is not clear then as soon as the government steps in and the project fails, foreigner investors could buy the land whereby the local population would lose access to the fields. Additionally, it would take one portion of the pasture, which has already been reduced by the irregular flooding in the rainy season (see section above). There is a strong opposition in Mbeza against the irrigation project lead by an ex-major of the Zambian army. He and his followers, especially the clan of the Kazoka-family claiming the control of the CPR area and the people still owning a lot of cattle, are arguing that the Ila have always been cattle herders and that it is this traditional economy which makes the Ila different and rich. They argue that with a better treatment of the animals the Ila would not face a food crisis but would be rich again like in former times. The strongest arguments are the feelings of being Ila people who love the cattle and the pasture areas of the flats and thereby reject violently this project. The Chief on the other side argues that he wants this project for the poor people of Mbeza, who have got nothing to eat and no cattle. So for him those who are against the project are the rich who take away the food of the poor. He has behind him the so-called "parliament of Mbeza", an elected body of local representatives of men and women. The struggle over the establishment of institutions on how to use the wetlands in the future is lead in Mbeza with meetings and counter-meetings, with threats to use force and to kill somebody. Nationally the protagonists fight with the help of different ministers of the actual government and the political opposition, who has nearly won the last elections in early 2002. Additionally in the national media, TV, radio and especially in the three national daily newspapers there are a lot of news and articles in which the side of the opposition to the project and the side representing the Chief try to manipulate the public opinion. In Mbeza itself the Chief has demanded to be protected by the police because of the threats by the opposition and so there were police officers at the parliament building and at the Chiefs palace during the last three months of our stay in Mbeza.

Both sides have got their own interests to protect and use the ethnic versus "the-rich-against-the-poor" ideology in order to pursue their own interests. The leader of the opposition wants to protect the pasture area he uses for himself and for which he partly has a title deed or wants to get one in the future. According to our informants he would then like to transform the old institution regarding the payment for the access to the pasture. Each family using a cattle camp in "his" area will then have to give a head of cattle each year and not once for getting access to the pastures. In this sense he wants to privatise the commons. The Chief on the other hand depends on project money to go on with his own projects and so he needs new funds. These funds he hopes to receive if the project would be supported by the Zambian and Italian government. It is therefore the future of the floodplains that is contested on an ideological arena where individual economic interests are hidden. The conflict was not solved when we left the area in January 2003, although already back in Switzerland we heard the rumour that the Zambian government is fed up with one part of the local people opposing to the project and therefore not supporting the project at the moment. Later on we were also informed that the opposition leader claimed of having stopped the project. But still it is not clear what is going on in the area. We are still waiting on reports from our research assistants.

Preliminary conclusions:

This is only a first report and final conclusions have to be made after having studied and analysed the data carefully. But this first information already suggests that the traditional CPR-institutions regarding wildlife and fisheries were incorporating Ostrom's design principles for robust institutions mostly for they were reducing transaction costs. But as mentioned in the study of Beeler and indicated in my hypothesis a more exact analysis has to be made regarding the notion of clear boundaries and regarding the flexibility governing the access at different times of a season. The research shows so far as well that the taking over of CPR-control by the state and its institutions rule out the local institutions but do not perform well regarding monitoring and sanctioning. They clearly give incentives for overuse and, what is even more dangerous, create a blockage for the local groups to organise themselves. Regarding the pasture area, agricultural land and the irrigation project the following remarks can be made. It can be said that the old rules on how to use the pasture were clear in olden days but that due to environmental (loss of cattle due to corridor disease, loss of pasture due to drought and dams) AND institutional changes (title deeds, poverty reduction schemes and proposed change in use of pasture land, intensified use of cattle versus use of agriculture backed by different individuals and interest groups with different bargaining power), the use or overuse of the pasture and the agricultural land can not be concluded now. It is only possible to show which factors influence the use of the pasture and the agricultural land at the moment and to analyse why there is now a conflict over the institutions governing the future use of the Kafue Flats in Mbeza.

Activities between 1.10.01 - and 1.2.03

October 01	Translation of proposal, university contacts, supervision of students
November 01	Literature study of major ethnographies and reports on the Ila and Tonga and on the Kafue Flats in general, university contacts, supervision of students
December 01	Literature study of major ethnographies and reports on the Ila and Tonga and on the Kafue Flats in general, university contacts, supervision of students
January 02	Literature study of major ethnographies and reports on the Ila and Tonga and on the Kafue Flats in general, university contacts, supervision of students
February 02	Literature study of major ethnographies and reports on the Ila and Tonga and on the Kafue Flats in general, university contacts, Contacts with IUCN, WWF and University of Zambia
March 02	Literature study of major ethnographies and reports on the Ila and Tonga and on the Kafue Flats in general, writing first drafts for post-doc-study based on literature, university contacts, Contacts with IUCN, WWF and University of Zambia
April 02	Same as March, finalising a first draft of literature work on the Ila of 150 pages, start preparation for fieldwork in Zambia
May 02	Same as March and April, preparation APAD-Conference, participation at APAD-Conference in Leiden, The Netherlands
June 02	Literature study of major ethnographies and reports on the Ila and Tonga and on the Kafue Flats in general, contact with Ena and Dennis Fowler, Kent (Missionaries working in the 1960ties with the Ila, they helped us out with a language book), writing first drafts for post-doc-study based on literature, university contacts, Contacts with IUCN, WWF and University of Zambia, mostly preparation for fieldwork
July 02	Preparation for fieldwork, preparation of questionnaires and guidelines for interviews, start learning the language (Ila), first discussions location research site
August 02	<ul style="list-style-type: none"> - 10.08.-25.08. 02: In Zambia contacts to IUCN (G. Richardson-Temm, M. Chongo Mweene), WWF (N. Nalumino), Prof. Dr. Harry Chabwela, University of Zambia, Musonda Mumba (Wetlands Research Unit, University College London), Dr. Mulenga Kapwepwe, University of Zambia Human Scientist). With those persons contact was made in order to get the research permission, locating an appropriate research site, making expert interviews. Organising a major research assistant and driver, buying a car and organising the logistics. - 26.-30.08.02: Trip to Mbeza, Chiefdom Nalubamba of the Ila, Namwala District, Southern Province together with IUCN-staff, permission by Chief Nalubamba
September 02	<ul style="list-style-type: none"> - employing and training of local research assistants (4 people) - locating local habitats and research sites (locating village Shikapande, building houses in Mbeza, village Shikapande, renting a house in Mazabuka) - conduction first interviews and biographies, making first questionnaires and adapting them - expert interviews staff of Fishery Department Mazabuka

	<p>start of co-operation with the staff of the local fishery departments in Mazabuka and Monze</p> <ul style="list-style-type: none"> - participant observation - visiting different fishing camps and villages in Namwala, Monze and Mazabuka districts; all of them in the Kafue Flats (Shimungalu, Nanga, Nyimba) where focus group interviews were conducted - visit to Livingstone and organising co-operation with local staff of Livingstone Museum (Dr. Mufiizi) - Comment: Due to the conflicts on a irrigation project proposed by Chief Nalubamba, I was more concentrated on research regarding the fisheries in the districts on the southern side of the Kafue Flats. Me and my family were seen by the opposition as being the white people implementing the by them hated irrigation project and bribing Chief Nalubamba in order to be able to by land. I tried my best to wipe out these rumours, which was not an easy thing to do. So in order to let the heated atmosphere cool down, we stayed in Mazabuka and made fieldtrips out from this city. Nevertheless I visited Mbeza regularly in order to supervise the fieldwork of the research assistants doing questionnaires on households and their livelihood. Additionally my wife and I have organised a four days visit of our research assistants in Mazabuka where we could make a lot of interviews without being harassed.
October 02	<p>more presence in Mbeza (village Shikapande), due to continuing tension and because of security reasons, we only stayed four to five days a week in the village before returning to Mazabuka. Up to our leave in January we were working this way which enabled us to stay most of the time during the week in the village but as well not the whole week and on irregular days in order not to be an easy target by the opposition of the Chief, location of villages where the questionnaires were made (Namachila, Shikapande, Mwanamwale, Shikalapo, Nakumba, Nakasale (Chiefdom Nalubamba), Nyimba (Chiefdom Hamusonde) and Shimungalo (Chiefdom Mwanachingwala)</p> <ul style="list-style-type: none"> - visiting different cattle camps in the Kafue Flats - visiting different fishing camps in the Kafue Flats - interviews with Ba-Twa people of Nyimba - participant observation - different meetings with Prof. Dr. Harry Chabwela and Musonda Mumba - Biographies - Different travels to Lusaka for co-ordination with IUCN, finalising the research permission at the UNZA - Many thematic interviews on old institutions governing CPRs - Environmentally related oral history - Contacts to the Veterinary Department in Mazabuka (Vaccination campaign financed by the Belgium government)
November 02	<ul style="list-style-type: none"> - Different visits to Lochinvar National Park, interviews with game rangers of Z A W A - visiting different fishing camps in the Kafue Flats

	<ul style="list-style-type: none"> - Biographies and interviews in Mbeza and in the Chiefdom Hamusonde and Chongo (neighbouring Tonga Chiefdoms in the Flats, interviews and focus group interviews on hunting and fishing) - Finalising first questionnaires in two Lozi and one Ba-Twa fishing villages Preparing new questionnaires - Finalising the second questionnaire in two fishing villages - Participant observation of <i>Iwando</i> fishing - Visit of cattle camps and pasture area of Chief Nalubamba, Chief Hamusonde and Chief Chongo
December 02	<ul style="list-style-type: none"> - Same work as in November (biographies, thematic interviews, participant observation etc.) - Visit to Namwala, talks with Veterinary Department - Visit and archive study at the Livingstone Museum, Livingstone until Christmas - Participant observations of collective fishing (<i>Jkuo</i>)
January 03	<ul style="list-style-type: none"> - Same work as in November - Participant observation of <i>Iwando</i>-fishing - Visit of our research assistants in Mazabuka; conduction final thematic interviews and biographies - Interview with staff of Z A W A regional office in Mazabuka Different expert interviews

Publications:

Haller, Tobias. 2002. Common Property Resource Management, Institutional Change and Conflicts in African Floodplain Wetlands: Presentation of a research project and reflections on institutional change and conflicts. *The African Anthropologist*, Vol. 9, No.1, March 2002:25-35.

Haller, Tobias. 2002. The Understanding of Institutions and their link to resource management from a New Institutionalism Perspective. Working Paper No.1, IP 6 Institutional Change and Livelihood Strategies.

Haller, Tobias. 2002. "Spiel gegen Risiken in der 'Natur'", In: Ch. Giordano and A. Boscoboinik (ed.). *Constructing Risk, Threat, Catastrophe. Anthropological Perspectives*. University Press Freiburg, Switzerland: Freiburg.

In Print:

Haller, Tobias. 2002. Rules which pay are going to stay: Indigenous institutions, sustainable resource use and land tenure among the Ouldeme and Paltha, Mandara Mountains, Northern Cameroon. In print in *APAD-Bulletin* 2002. (APAD-ASC-Conference in Leiden, The Netherlands May 22-25, 2002)

Comments on Organisations and Universities:

There is a close co-operation and exchange with the World Conservation Union Zambia (IUCN Zambia) and with its headquarter in Gland. IUCN Zambia helped me with the location of the research site, to receive the research permission and the affiliation at the University of Zambia and with logistics (use of their dollar account, accounting, fax and telephone). The co-operation was excellent with the secretary Margaret Chongo Mweene.

The collaboration was very good with staff from UNZA, especially with Prof. Dr. Harry Chabwela, who is the main scientist working in the Kafue Flats. There are no social scientists of the UNZA working in the area so far and the Department of Sociology, where anthropological questions are discussed, is working on different issues and not fully operating. Excellent was the co-operation with MA Musonda Mumba, a Zambian doctoral candidate of the Wetlands Research Unit of Dep. Of Geography, University College London (UCL), who during our stay was also working in the Kafue Flats on a dissertation of vegetation change. Very helpful was the co-operation with the staff from the Department of Fisheries in Mazabuka and Monze and with the local park ranger of ZAWA in Lochinvar National Park.

Further comments:

As indicated in the last section of the report, we (me, my wife and our daughter) were in the middle of a fierce conflict in Mbeza. We became part of this conflict without knowing and completely unwillingly: After we had already established our research in the area (we were introduced officially to Chief Nalubamba and by him to his local parliament that accepted our research), we were informed by the Chief of the proposed irrigation project and he told us, that the opposition was linking us to the project. He told us that we were regarded as the white people coming to buy land and implementing the project but that he has done everything to inform his people that we are doing research. We then got to know who the opposition leader was and called on him at his home place in order to inform him that we were "no threat to the pasture area. He then told us that the Ila are fond of research but that we had come at the wrong time and that he cannot guarantee for our security because he cannot guarantee for the security of the chief. The chief, he said, was corrupt and the people of Mbeza (meaning the opposition to the project) held a meeting at which a manifesto against the project and our stay in Mbeza had been written. He then proposed that we stepped out for three weeks. Up to that time, he said, the Chief would be killed or pushed away. He then started threatening us by saying that we could be attacked on the way and that he was concerned for our security. He was very detailed on what could happen to us if we did not leave immediately. This gave us the impression that he could be the one attacking us if we staid. We then decided to leave Mbeza for three weeks, only returning in order to co-ordinate the work of our research assistants. Additionally, I went to Mbeza one time for a meeting because the Chief had invited me. But at this meeting the opposition turned up and I had to be hidden in one of the local guest-houses because our research assistants feared that the Chief and I could be attacked. The Chief himself was very eager that we stayed and continued our research for our leave would have undermined his authority considerably. By accident we met the opposition leader again in the capital Lusaka, where he repeated his threats in the same manner. As he knew that we had already two traditional houses build in Mbeza he said that they could be burned and that we had to leave Mbeza immediately. We then went to the police to report the matter. Because the opposition leader had again repeated the threats against the Chief, three police officers were from this time on constantly staying at the Chiefs court and parliament as well as at the Chiefs palace; one of them came to our houses during the night in order to protect us. But this police presence did not last long because one of the police officers was always drunk and a second was always away due to family problems. So only one officer stayed in the area and he was then always protecting the Chiefs office and the palace. We were in the family

constantly reconsidering our security situation and already at an early stage we decided that we had to rent a house in the town of Mazabuka (120 km away from the Chiefdom), where we were safe and where we had telephone and internet facilities. The place was a very good choice for a very interesting co-operation with the Department of Fisheries and of the Veterinary Department was made possible. Additionally, we asked our research assistants to discuss in the village Shikapande, where we were located in Mbeza, if the local villagers wanted us to leave. The clear answer was no and we had a very good support from the local people of whom most were not very favourable of the irrigation project. Nevertheless we took security measures and by this we were four to five days a week in the village in Mbeza and the rest of the week in Mazabuka. We also constantly changed our dates of departure and returning back to the field in order to increase our security.

Taking these security measures was of course not without costs and so I spend much more money in Zambia than I had foreseen. There were more expenditures on diesel, car repair (more repair due to more driving), more research assistants in order to finish the two questionnaires I developed together with my wife and more research assistants to get information in areas which were too dangerous for us to show up (especially some villages controlled by the opposition in the Kafue Flats).

I estimate that I spend about 21'000 CHF. more than foreseen by my previous budget and I therefore propose to change some sections in the budget (see proposal in my letter of introduction).

Bibliography:

- Chabwela, H.N. 1992. The ecology and resource use of the Bangweulu Basin and the Kafue Flats. In: R.C.V. Jeffrey, H.N. Chabwela, G. Howard and P.J. Dugan (Hrsg.). *Managing the Wetlands of Kafue Flats and Bangweulu Bassin*. Gland: IUCN. 11-24.
- Colson, Elizabeth. 1970. *The Plateau Tonga of Northern Rhodesia (Zambia)*. Social and Religious Studies. Manchester: University Press Manchester.
- Cutshall, Charles, Raymond, II. 1980. *Disputing for Power: Elites and the Law among the Ila of Zambia*. London: University Microfilms International.
- Ellenbroek, G.A. 1987. Ecology and productivity of an African wetland system. *The Kafue Flats, Zambia*. Geobotany 9.
- Fielder, R.J. 1973. The Role of the Cattle in the Ila Economy. *African Social Research* 15:327-261.
- Gibson, Clark, C. 1999. *Politicians and Poachers. The Political Economy of Wildlife Policy in Africa*. Cambridge: Cambridge University Press.
- Holub, Emil (1890) 1975. *Emil Holub's Travel north of the Zambezi 1885-6. A translation of the second volume of "Von der Capstadt ins Land der Maschukulumbe. Reisen im sudlichen Afrika in den Jahren 1883-7" by Christa Jones and Ladislav Holy*. The Institute for African Studies University of Zambia. Manchester: Manchester University Press.
- Jeffrey, R.C.V., Chabwela, H.N., Howard G. and P.J. Dugan. Hrsg. 1992. *Managing the Wetlands of Kafue Flats and Bangweulu Bassin*. Gland: IUCN.
- Smith E.W. and Dale A.M. 1968. *The Ila-speaking Peoples of Northern Rhodesia (First edition 1920)*. University books New York 1968. Vol I. and II.
- Tuden, A. 1968. Ila Property relationships and Political Process. In: *Local-level Politics*. M. Schwartz (ed.). New York: Atherton.