The hippopotamus: nothing but a nuisance?
Hippo-human conflicts in Lake Victoria area, Kenya

Acknowledgements

During my first stay in Kenya in 1996, Dr. Okeyo Owuor and I had an interesting conversation about hippopotamuses. These animals were said to cause major problems to local people living along the shores of Lake Victoria, Kenya. To his knowledge, this issue had not been studied before. We both thought this could be a very interesting topic for my fieldwork, scheduled for 1997.

I had been interested in hippos for quite some time. Back home, I tried to read as much as I could about hippos, Lake Victoria area, wildlife-human conflicts etc. As it turned out, this kind of information was scattered and incomplete. Even though there were reports on wildlife-human conflicts, they hardly ever mentioned hippos as one of the actors. Available information on hippos mainly had a biological focus.

I was well aware that this research would be ‘pioneering’ to some extent. To me, this was a challenge, even though I realised there could be some drawbacks as well. I had to develop my own framework, and had to do most of the work ‘on the spot’. The questionnaire for instance was written during my stay at Moi University, Eldoret, Kenya. Dr. Stol was so kind to ‘serve as a guinea pig’ when the questionnaire was first tested. Dr. Okeyo Owuor and Prof. Otieno accompanied me to one of the research sites in order to conduct a pilot. To me, this was an excellent opportunity to get accustomed to the area of research. I also had the opportunity to meet the interpreter Raphael Odhiambo, who would accompany me during the interviews in the four research districts. He told me many interesting things about the Luo culture and proved to be a valuable help, for which I am very grateful.

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Introduction:

Wildlife is a major source of attraction, particularly to tourists. Who does not admire wild species like elephants and leopards? In a country like Kenya the tourist sector thrives on visitors who come to view the large array of wildlife that includes the ‘big five’ (elephant, buffalo, lion, leopard, and rhino) as well as other species like hippos. Kenya’s national parks and game reserves rate among the best in Africa. Wildlife species are often seen as an asset: they are valued out of aesthetic or economic considerations.

There is another side to the presence of wildlife though. In Kenya, over seventy percent of the wildlife population lives beyond protected areas. The destruction of their habitats is specifically regarded as an ominous sign, mostly caused by human encroachment upon areas which used to be former wildlife habitats. Both man and beast compete over the same space. These conflicts over land use have become more intense due to relatively high human population growth rates and the limited availability of naturally arable land. Such conflicts manifest themselves in different ways: on the one hand people experience damage brought about by wildlife, on the other animal numbers are being reduced. The current situation seems therefore unsustainable in the long run.

This thesis focuses on a particular kind of conflict: it investigates situations of conflict between man and hippos in Lake Victoria area, Kenya. This is a major wetland area on which the lives of many people depend. It is also an area that accommodates hippos. The research is regarded as a baseline study. Besides the acquisition of data concerning causes, manifestations, and effects of hippo-human conflicts, the research also looks into the number of hippos and their distribution in the lake region.

Chapter 1 gives an overview of theoretical concepts, which relate to wildlife-human conflicts such as (sustainable) development, environment and biodiversity conservation. Two approaches of biodiversity conservation are significant to this research viz. conservation of species and habitats or ecosystems. The functioning and significance of wetland ecosystems are discussed, as hippos, which are considered to be ‘keystone species or ecosystem engineers’, inhabit wetlands. The presence of hippos is highly significant to the functioning of wetland ecosystems. Currently many species are threatened in their existence. Most threats are anthropogenic in nature: they are induced by man. The implementation of foreign conservation techniques that hardly reflect African interests underlies the problem in the wildlife sector. Wildlife-human conflicts are more than a clash between man and beast, they also represent conflicting interests of multiple human actors with regard to the utilisation of land. The situation of tension concerns the acquisition or maintenance of access to space. A large part of the ‘battle over resource utilisation’ takes place in the political arena, where decisions about natural resource management are made. Local people often complain that they are excluded from the debate over wildlife-related issues; conservation is carried out at their expense. This touches upon political issues like access to natural resources, tenure regimes, empowerment and community participation.
The methodological outline of the research is presented in Chapter II. The main research question is phrased as follows: “What kind of conflicts exist between hippopotamuses and people living in the densely populated areas along the shores of Winam Gulf, Lake Victoria, Kenya? In order to answer this question it is necessary to have a sound grasp of conflict situations. Why, where and when do hippo-human conflicts occur? What are conflicts about? The derived research questions serve as a guideline for the characterisation of hippo-human conflicts in terms of causes, time, space and attitudes. Issues of conflict represent a dynamic field of study, which involves a range of actors. These actors operate at different levels and have their specific interests. The conceptual scheme attempts to clarify this dynamism.

Chapter III positions wildlife-human conflicts in an exemplary wildlife country: Kenya. Hippos are not to be regarded as the only species considered to cause problems. In Kenya there is a huge outcry over wildlife-induced damage. On the one hand, there are people who benefit from the presence of wildlife, on the other there are many who suffer losses caused by wildlife. To local people wildlife does not represent ‘forex’ earnings, but destruction and loss of income or lack of food. The increase in conflicts may be attributed to the rapid expansion of agricultural settlement. Naturally arable land is relatively scarce in Kenya. High population growth rates accelerate pressure on land in certain areas and intensify conflicts with wildlife. Major actors in the Kenyan context are studied. An important actor is the Kenya Wildlife Service, which has the custody over wildlife populations and bears the responsibility for problem animal control. The performance of the organisation is discussed on the basis of an evaluation concerning situations of direct interaction between man and wildlife in Kenya.

The research area is described in Chapter IV in terms of physical characteristics and prevalent systems of land use. Rural people living along the shores of the lake lay claims to lands bordering the lake, where they come into conflict with hippos. Respondents’ main economic activities are studied. Different kinds of activities may lead to different ‘risk profiles’. Developments over time are taken into account as well: respondents may have adjusted the composition of their activity pattern in an attempt to reduce the risk of hippo-induced damage.

Hippos are at the centre of Chapter V, in which a general overview of the species and its former and current distribution is presented. Moreover, rough estimates of hippo numbers are given. This chapter contains basic information of the species with regard to its habitat and behaviour. This is required to fully address hippo-related problems and develop strategies for conflict resolution or mitigation. Hippos inhabit wetland areas; their significance to wetland ecosystems is stressed and their impact on the environment is considered. Consequently, threats facing hippos are discussed too. This involves an investigation of the impact of man on hippo populations and wetlands -their habitats. Conflict situations arise because both man and hippos claim land: one in an active way, the other because it is determined by nature. Threats, which are anthropogenic in nature, may have serious implications for the future existence of hippos in the lake region, as hippos accommodate areas that are not protected by law. Even though the species itself is legally protected, its number could be severely reduced due to habitat loss and conflicts with men.

Chapter VI looks into hippo observations. It is investigated to what extent local people are aware of the presence of hippos in their area. This concerns knowledge of hippo sites, the usual visibility of hippos, local estimates of hippo numbers, and the perceived trend in their number. Hitherto, this kind of ‘background’ information was not available for the lake region. It should be part of a baseline study on hippo-human conflicts. Respondents and officials of different organisations involved in wildlife matters provided information on hippo numbers and their whereabouts in the area of research. Finally, hippos were briefly characterised by respondents and officials. They were asked to what extent hippos could be regarded as problem animals.

The manifestations of hippo-human conflicts along the shores of the lake are discussed in Chapter VII. Conflicts manifest themselves in different ways; specifically damage induced by hippos in the field of agriculture, livestock-keeping and fisheries were looked into. Damage assessment can be regarded in terms of the kind of loss, its timing and a financial estimate. The extent of the damage may be correlated with the method of protection applied. Consequently, methods of protection used by respondents are introduced. Ancient methods of trapping the animals are still used, but on an incidental basis, for people not only fear the animals but possible repercussions by the government as well. If people suffer losses due to hippos, they have the opportunity to report these to the authorities. Loss rates are compared with report rates: the outcome may indicate the extent of hippo-human conflicts.

Many people have developed a specific attitude towards hippos, based on prior experiences with the species. Attitudes and perceptions are at the core of Chapter VIII. It is investigated how local people perceive the presence of hippos in their area and whether or not hippos are considered to be of value. Whenever people value hippos, they might be more inclined to conserve the species in their area for instance through the establishment of a hippo farm. Such a farm should render benefits to the local communities. The farm was only one of the ideas to resolve hippo-human conflicts. Respondents and officials brought several ideas forward. A compilation of the most interesting ideas can be found in the recommendations made in Chapter IX.
The Hippopotamus: nothing but a nuisance? Aenne Post, University of Amsterdam.

List of acronyms and abbreviations:

ACC   African Conservation Centre (the former Wildlife Conservation International)
AWF   African Wildlife Foundation
CBC   Community Based Conservation
CIITES Convention on International Trade in Endangered Species of Wild Fauna and Flora
CWS   Community Wildlife Service
DAO   District Agricultural Officer
DC    District Commissioner
DDP   District Development Plan
DO    District Officer
DRSRS Department of Resource Surveys and Remote Sensing
EAWLS East African Wildlife Society
FOC   Friends of Conservation
GEF   Global Environmental Facility
GR    Game Reserve
IUCN  International Union for Conservation of Nature and Natural Resources
KMPRI Kenya Marine and Fisheries Resource Institute
KREMU Kenya Rangeland Ecological Monitoring Unit
KWS   Kenya Wildlife Service
LBDA  Lake Basin Development Authority
LVEMP Lake Victoria Environmental Management Programme
NEAP  National Environment Action Plan
NIB   National Irrigation Board
NGO   Non-governmental organisation
NP    National Park
OSIENALA Friends of Lake Victoria/Environment Restoration Programme
PAC   Problem Animal Control
PAWS  Protected Area Wildlife Service
RAD   Regional Assistant Director
SL    Sub-location
TRAFFIC Trade Records Analysis of Flora and Fauna in Commerce
UNEP  United Nations Environment Programme
VLH   Very Large Herbivore
WCED  World Commission on Environment and Development
WCMP  World Conservation Monitoring Centre
WCMD  Wildlife Conservation and Management Department
WCS   World Conservation Strategy
WPU   Wildlife Planning Unit
WTMU  Wildlife Trade Monitoring Unit
WWF   World Wildlife Fund

List of contents:

Introduction

Chapter I: Theoretical concepts relating to wildlife-human conflicts 1-26
I.1 The environment-development nexus 1
I.2 The concept of conservation 3
I.3 The concept of biodiversity, related to wetland ecosystems and species 7
I.4 Conflicts 15
I.5 A focus on land use matters 19
I.6 Conclusion 24

Chapter II: Research-methodology 27-40
II.1 A methodological outline 27
II.2 The area of research 31
II.3 Data collection 37

Chapter III: Wildlife-human conflicts in Kenya 41-60
III.1 A historical overview of wildlife conservation in Kenya 41
III.2 Actors and stakeholders involved in wildlife conservation/management 44
III.3 Land issues 49
III.4 Conflict situations 52
III.5 Conclusion 58

Chapter IV: Lake Victoria area 61-86
IV.1 The lake ecosystem 61
IV.2 The natural potential of Lake Victoria area 64
IV.3 An economic profile of Lake Victoria area 70
IV.4 Economic activities of respondents 73
IV.5 Conclusion 85

Chapter V: Hippopotamuses 87-118
V.1 A general description of the species 87
V.2 Distribution and numbers of hippopotamuses 91
V.3 Habitats of hippopotamuses 97
V.4 Behaviour of hippopotamuses 106
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>V.5</td>
<td>The meaning of hippopotamuses in the African ecosystem</td>
<td>109</td>
</tr>
<tr>
<td>V.6</td>
<td>The conservation status of the hippopotamus</td>
<td>112</td>
</tr>
<tr>
<td>V.7</td>
<td>Hippo-human conflicts</td>
<td>114</td>
</tr>
<tr>
<td>V.8</td>
<td>Conclusion</td>
<td>117</td>
</tr>
<tr>
<td>VI.1</td>
<td>Local knowledge of hippo territories</td>
<td>119</td>
</tr>
<tr>
<td>VI.2</td>
<td>Visibility of hippos</td>
<td>121</td>
</tr>
<tr>
<td>VI.3</td>
<td>Local hippo estimates</td>
<td>125</td>
</tr>
<tr>
<td>VI.4</td>
<td>The perceived trend in hippo numbers</td>
<td>126</td>
</tr>
<tr>
<td>VI.5</td>
<td>Hippo movements/migration according to respondents</td>
<td>130</td>
</tr>
<tr>
<td>VI.6</td>
<td>Hippos as 'problem animals'?</td>
<td>131</td>
</tr>
<tr>
<td>VI.7</td>
<td>Conclusion</td>
<td>138</td>
</tr>
<tr>
<td>VII.1</td>
<td>Conflict manifestations</td>
<td>139</td>
</tr>
<tr>
<td>VII.2</td>
<td>Losses specified</td>
<td>142</td>
</tr>
<tr>
<td>VII.3</td>
<td>Reports of losses</td>
<td>156</td>
</tr>
<tr>
<td>VII.4</td>
<td>Methods of protection</td>
<td>162</td>
</tr>
<tr>
<td>VII.5</td>
<td>Conclusion</td>
<td>169</td>
</tr>
<tr>
<td>VIII.1</td>
<td>Do local people consider hippos to be of value?</td>
<td>171</td>
</tr>
<tr>
<td>VIII.2</td>
<td>Traditional beliefs</td>
<td>175</td>
</tr>
<tr>
<td>VIII.3</td>
<td>Conservation</td>
<td>180</td>
</tr>
<tr>
<td>VIII.4</td>
<td>Conflict resolution</td>
<td>185</td>
</tr>
<tr>
<td>VIII.5</td>
<td>Conclusion</td>
<td>192</td>
</tr>
<tr>
<td>IX.1</td>
<td>Conclusion and recommendations</td>
<td>195-202</td>
</tr>
</tbody>
</table>

Suggestions for further research

Bibliography 203

Enclosures